

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

S.R., individually and as next of friend to
minor plaintiff L.S.,

Plaintiff,

v.

META PLATFORMS, INC., formerly
known as FACEBOOK, INC.; SNAP,
INC.; TIKTOK INC.; BYTEDANCE
INC.,

Defendants.

CIVIL ACTION NO.

**COMPLAINT AND DEMAND
FOR JURY TRIAL**

“In these digital public spaces, which are privately owned and tend to be run for profit, there can be tension between what’s best for the technology company and what’s best for the individual user or for society. Business models are often built around maximizing user engagement as opposed to safeguarding users’ health and ensuring that users engage with one another in safe and healthy ways. . . . Technology companies must step up and take responsibility for creating a safe digital environment for children and youth. Today, most companies are not transparent about the impact of their products, which prevents parents and young people from making informed decisions and researchers from identifying problems and solutions.”

Protecting Youth Mental Health, The U.S. Surgeon General’s Advisory (December 7, 2021)

Plaintiff S.R., individually and as next of friend to minor plaintiff L.S., brings this action against Meta Platforms, Inc., formerly known as Facebook, Inc. (“Meta”), doing business as Facebook (“Facebook”) and doing business as Instagram (“Instagram”), Snap, Inc., doing business as Snapchat (“Snapchat”), and TikTok Inc. and ByteDance Inc. (collectively, “TikTok”) and alleges as follows:

I. INTRODUCTION

A. Plaintiff’s Claims

1. This product liability action seeks to hold Defendants’ Facebook, Instagram, Snapchat, and TikTok products responsible for causing and contributing to the burgeoning

mental health crisis perpetrated upon the children and teenagers of the United States by Meta, Snap, and TikTok and, specifically for the injuries they caused L.S. starting when she was only ten years old. Those injuries, proximately caused by Defendants' unreasonably dangerous social media products, include but are not limited to addiction, sleep deprivation, anxiety, depression, and severe self-harm.

2. On December 7, 2021, the United States Surgeon General issued an advisory cataloging a dramatic increase in teen mental health crises including suicides, attempted suicides, eating disorders, anxiety, depression, self-harm, and inpatient admissions. While the most significant and far-reaching change to the lives of young people during this period was the launch and light speed growth of certain social media platforms, most prominently for purposes of this litigation lawsuit,

- a. The Facebook product, founded in 2004 but not made available to everyone until September 2006, and designed and distributed by Meta.
- b. The Instagram product, launched in 2010, acquired by Facebook (now Meta) in 2012, and designed and distributed by Meta.
- c. The Snapchat product, launched in 2011 and designed and distributed by Snap, Inc.
- d. The TikTok product, launched in 2016 and designed and distributed by TikTok.

2. Plaintiff's harms are a symptom of this current mental health crisis among American youth caused by these Defendants – which comes as no surprise to Defendants. From the beginning, Defendants have exploited vulnerabilities in human psychology to addict users and maximize user time and engagement. Meta's first Pnt, Sean Parker, summed up the devastating impact of these social media designs in a 2017 interview:

God only knows what it's doing to our children's brains. The thought process that went into building these applications, Facebook being the first of them, ... was all about: "How do we consume as much of your time and conscious attention as possible?" And that means that we need to sort of give you a little dopamine hit every once in a while, because someone liked or commented on a

photo or a post or whatever. And that's going to get you to contribute more content, and that's going to get you ... more likes and comments. It's a social-validation feedback loop ... exactly the kind of thing that a hacker like myself would come up with, because you're exploiting a vulnerability in human psychology. The inventors, creators — it's me, it's Mark [Zuckerberg], it's Kevin Systrom on Instagram, it's all of these people — understood this consciously. And we did it anyway.¹

3. For years, Defendants have operated under the fiction that they are untouchable and have operated with the goal of exercising control over the entirety of America's youth — which allegation is proven by Defendants' own records and testimony of former employees. Meta's founder, Chairman, CEO, and controlling stockholder, Mark Zuckerberg, for many years ended company meetings with the exhortation "Domination!"² This is the mentality under which these Defendants operate and, until now, they came shockingly close to reaching that objective.

4. By 2014, 80 percent of high school students said that they used a social media platform daily, and 24 percent reported being online "almost constantly." Millions of U.S. children and teenagers check their social media accounts hundreds, if not thousands, of times every day, and spend hours on social media to the point of extreme exhaustion and sleep deprivation. Millions of teenagers also want to quit using social media but feel as though they cannot. These children and teens are so locked-in to Defendants' products that they harm themselves and/or put themselves in harms' way when their parents attempt to limit or

¹ Mike Allen, *Sean Parker unloads on Facebook: "God only knows what it's doing to our children's brains"*, Axios (November 9, 2017), <https://www.axios.com/2017/12/15/sean-parker-unloads-on-facebook-god-only-knows-what-its-doing-to-our-childrens-brains-1513306792>.

² Evan Osnos, *Can Mark Zuckerberg Fix Facebook Before It Breaks Democracy?*, THE NEW YORKER (Sept. 10, 2018); *see also, e.g.*, Kate Losse, *THE BOY KINGS: A JOURNEY INTO THE HEART OF THE SOCIAL NETWORK* (2012); Renee M. Jones, *The Unicorn Governance Trap*, 166 U. PA. L. REV. ONLINE 165, 186-87 (2017), <http://www.pennlawreview.com/online/166-U-Pa-L-Rev-Online-165.pdf>; Cecilia Kang and Sheera Frenkel, *AN UGLY TRUTH: INSIDE FACEBOOK'S BATTLE FOR DOMINATION* (2021); Henry Blodget, *Mark Zuckerberg on Innovation*, BUSINESS INSIDER (Oct. 1, 2009) (quoting Zuckerberg: "Move fast and break things. Unless you are breaking stuff, you are not moving fast enough.").

remove access to Defendants' products. Defendants are aware of these harms, and their pervasiveness, and are counting on their designed addictions and exploitation of children and teens to keep them in their positions of unchecked growth and power.

5. Peer reviewed studies and the available medical science have identified social media use as a cause of major mental health injuries among youth. Large observational studies and experimental results point to such use as the cause of sleep deprivation, anxiety, depression, anger, eating disorders, suicidal ideation, and suicide and self-harm. More to the point, Defendants' own internal studies and/or observations have concluded the same.

6. Defendants have invested billions of dollars to design and develop their products to encourage, enable, and push content to children and teenagers that Defendants know to be problematic and highly detrimental to their minor users' mental health.

7. Each of Defendants' products contains unique product features which are intended to and do encourage addiction, and unlawful content and use of said products, to the detriment of their minor users.

8. Defendants target and market their products to children and teens, design their platforms around sunk cost and network effect principles – which designs are not known to ordinary and reasonable consumers – for the express purpose of locking in minor users so that they continue to use Defendants' products, no matter the cost to those same minor users' health and well-being. In fact, Defendants know the cost to those minor users which is why most (if not all) of Defendants' principals and designers severely restrict and/or prohibit the use of these products by their own children. Plaintiffs can think of no other industry where product manufacturers have gotten away with marketing and distributing to kids, while being too afraid of the product they are making to let their own kids use it; much less while repeatedly representing to the public and even to Congress in sworn testimony that their products are not addictive, and that they utilize all available technologies to keep kids safe.

9. Defendants have perpetrated a terrible fraud and cover up upon the American public, and the world, and have gotten away with it for far too long.

10. Plaintiff brings claims of strict liability based upon Defendants' defective design of their social media products that renders such products not reasonably safe for ordinary consumers or minor users. It is technologically feasible to design social media products that substantially decrease both the incidence and magnitude of harm to minors arising from their foreseeable use of Defendants' products with a negligible increase in production cost.

11. Plaintiff also brings claims for common law negligence arising from Defendants' unreasonably dangerous social media products and their failure to warn of such dangers. Defendants knew, or in the exercise of ordinary care should have known, that their social media products were harmful to a significant percentage of their minor users and failed to redesign their products to ameliorate these harms or warn minor users and their parents of dangers arising out of the foreseeable use of their products.

12. Plaintiff's claims do not arise from third party content, but rather, Defendants' product features and designs, including but not limited to recommendation technologies and other product features that addict minor users, amplify and promote harmful social comparison, affirmatively select and promote harmful content to vulnerable users based on its individualized demographic data and social media activity, put minor users in contact with dangerous adult predators, and otherwise prioritize engagement (and Defendants' profits) over user safety.

II. PARTIES

13. Plaintiff S.R. is L.S.'s parent and legal guardian. L.S. is currently 16 years old and began suffering harms caused by the Facebook, Instagram, TikTok, and Snap products before she turned 13, and without her mother's knowledge or consent. Both S.R. and L.S. are citizens of New Jersey.

14. S.R. has not entered into a User Agreement or other contractual relationship with any of the Defendants herein in connection with L.S.'s use of their social media products, and further disaffirms all agreements that her child may have entered with

Defendants. As such, Plaintiff is not bound by any arbitration, forum selection, choice of law, or class action waiver set forth in any such agreements.

15. Defendant Meta Platforms, Inc., formerly known as Facebook, Inc., is a Delaware corporation with its principal place of business in Menlo Park, CA. Defendant Meta Platforms owns and operates the Instagram social media platform, an application that is widely available to users throughout the United States.

16. At all times relevant hereto, Defendant Meta Platforms, Inc. was acting by and through its employees, servants, agents, workmen, and/or staff, all of whom were acting within the course and scope of their employment, for and on behalf of Meta Platforms, Inc.

17. Defendant TikTok, Inc. is a California corporation with its principal place of business in Culver City, CA. Defendant TikTok owns and operates the TikTok social media platform, an application that is widely marketed by TikTok and available to users throughout the United States.

18. At all times relevant hereto, Defendant TikTok Inc. was acting by and through its employees, servants, agents, workmen, and/or staff, all of whom were acting within the course and scope of their employment, for and on behalf of TikTok Inc.

19. Defendant ByteDance Inc. is a Delaware corporation with its principal place of business in Mountain View, CA. Defendant ByteDance owns TikTok, Inc. and owns/operates the TikTok social media platform.

20. At all times relevant hereto, Defendant ByteDance Inc. was acting by and through its employees, servants, agents, workmen, and/or staff, all of whom were acting within the course and scope of their employment, for and on behalf of ByteDance Inc.

21. TikTok is highly integrated with its Chinese parent, ByteDance. TikTok's engineering manager works on both TikTok and ByteDance's similar Chinese app, Douyin. TikTok's development processes are closely intertwined with Douyin's processes. TikTok employees are also deeply interwoven into ByteDance's ecosystem. They use a ByteDance product called Lark, a corporate internal communications system like Slack but with

aggressive performance-management features aimed at forcing employees to use the system more.

III. JURISDICTION AND VENUE

22. This Court has subject-matter jurisdiction over this case under 28 U.S.C. § 1332(a) because the amount in controversy exceeds \$75,000, and Plaintiffs and Defendants are residents of different states.

23. This Court has specific jurisdiction over all Defendants because these defendants transact business in New Jersey with New Jersey residents, Plaintiff's claims set forth herein arise out of and relate to Defendants' activities in the State of New Jersey, and Defendants have each purposefully availed themselves of the benefit of transacting business in New Jersey with New Jersey residents. For example, all of these defendants advertise and encourage use of the products at issue in New Jersey; enter into millions of contracts with New Jersey residents, including as relating to use of these same social media products; provide access to significant percentages of New Jersey's population to these social media products; generate and send emails and other communications to New Jersey residents, including L.S.; design and distribute push notifications, recommendations, and other communications to New Jersey residents, aimed at encouraging addiction and use of Defendants' social media products, as they did here; actively and extensively collects personal and location information belonging to New Jersey residents, including L.S.; and generate revenue from New Jersey activities that dwarfs what most New Jersey-based businesses generate. In some cases, Defendants may also have employees located in the state of New Jersey, who work remotely while located in this State.

24. Nor will Defendants stop interacting with New Jersey residents or bar New Jersey residents from distribution and use of their social media products, because revenue they obtain because of New Jersey users and having users in New Jersey is too significant. Walling off distribution to New Jersey would have a devastating impact on Defendants' entire business, irrespective of Defendants' total number of users worldwide.

25. Plaintiff is also a resident and citizen of New Jersey, L.S. acquired and used Defendants' products in New Jersey, and Plaintiff suffered injuries here as a result.

26. Venue is proper in this District under 28 U.S.C. § 1391(b) because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this District.

IV. FACTUAL ALLEGATIONS

27. In late 2021, a Facebook whistleblower disclosed thousands of internal Meta documents to the United States Securities Exchange Commission (the "SEC") and Congress. The Facebook Papers prove known dangerous designs and design defects as well as operational decisions and calculations, and a causal relationship between use of Defendants' various social media products in their current form and resulting addiction, anxiety, depression, eating disorders, exploitation and grooming, and what Meta internally refers to as "SSI" (Suicide and Self Injury). While the Facebook Papers originate from Meta, they prove known dangerous designs and design defects as well as other dangers caused by the social media products of all Defendants.³

28. Defendants have knowledge about the harms their products cause users, particularly teen, child, and other vulnerable user populations, and all Defendants continue to operate those products in a harmful and dangerous manner anyway and in the interest of competing with one another and increasing already astronomical profits. Meta is simply the only one whose documents have been disclosed; even then, Plaintiff anticipates literal truckloads of additional evidence that will support these claims and show precisely what these social media designers and distributors have done in the name of corporate greed.

³ Examples of the Facebook papers have been published by the Wall Street Journal (<https://digitalwellbeing.org/the-facebook-files-on-instagram-harms-all-leaked-slides-on-a-single-page/>), Gizmodo (<https://gizmodo.com/facebook-papers-how-to-read-1848702919>), and other publishers, and have been disclosed to the SEC, Congress, and others on a global scale. Plaintiffs expressly incorporate all such documents into this Complaint by reference, which are central and material to certain of Plaintiffs' claims.

29. These Defendants are making calculated cost-benefit business decisions and are consistently prioritizing their already astronomical profits over human life.

A. Meta and its Facebook and Instagram Products

30. Meta, founded in 2004, is the world's largest social media company, and its motto until recently was "Move Fast and Break Things," while Instagram began as a simple photo-sharing application, which Meta purchased in 2012.

31. When Meta began, access to its products were limited to college students, with email and/or domain verification to confirm the same.

32. In September 2006, Meta opened Facebook up to everyone. It claimed that it provided access only to persons 13 and older, and that users under 18 should obtain parental consent. But it also stopped verifying age or identity, to the point where Meta did not even verify existence of a valid email address – meaning that underage users enter nonsense email addresses and Meta provides access to limitless Facebook and Instagram accounts. These product changes were good for Meta's bottom line but resulted in the complete absence of any safety features for children and teens.

33. In 2009, Meta launched the "like" button product and, in 2011, it launched Facebook Messenger. By 2012, when Meta acquired the Instagram social media product, it was making rapid and significant changes to all its social media products – including Facebook and Instagram – which changes focused entirely on increasing engagement at any cost. This included product changes, as well as changes in data collection and advertising policies and procedures; essentially any change Meta could think up that might bolster engagement and revenue, particularly among children and teens, and create greater addiction and network effects features to ensure that those users would be locked-in to its social media products for years to come – but at the expense of user safety and autonomy.

34. To name only one example, in 2014, Meta applied for just one of its many patents for new processes and systems Meta was developing in connection with its

recommendation technologies. Patent No. 9,798,382, Systems and methods of data and eye tracking analysis, relates specifically to the eye tracking processes Meta intends to use or uses in connection with its content recommendation systems (a/k/a algorithms). Meta has denied current use of this patented technology. It is unknown whether Meta's representations on this point were accurate, but regardless, it is worth noting that this patented technology would permit, among other things, tracking of eye movements, pauses, etc. This means, for example, that if someone pauses on offensive content because it is *offensive* but has no desire to view or otherwise engage with the content, as evidenced by the fact that they do not like, react to, or share the offensive content, Meta could use the fact of the pause to identify and push similar content to them anyway. Meta has no concern for consent, only engagement, and it is unclear whether Meta is using or will use this tech and in what manner.

35. In 2015 and 2016, Meta made other changes to its Facebook and Instagram content recommendation technologies, including programming its products for engagement rather than user interest or safety; and implementing a multitude of other technologies meant to help Meta determine what might catch each user's attention, irrespective of what the user requested or wanted to see, including utilization of user data in connection with activities undertaken *off* the Facebook and Instagram social media products. Meta removed any modicum of user control and did so behind closed doors.

36. With the knowledge that teen and child users were Meta's only opportunity for growth in the United States, Meta also ramped up its marketing to children and teens – including and specifically to children under the age of 13. It designed several new products and re-designed several old ones on its Facebook and Instagram platforms, launched and marketed games and emojis, and became significantly more involved with content creation. It also made it easier for kids to hide accounts and switch between accounts on a single device and, at one point, launched a campaign to ensure that all teens knew of their ability to open multiple accounts.

37. Meta also continued finding new ways to monetize user content and the users

themselves, including development of incredibly complex and invasive advertising products, tools, and technologies – which have made Meta billions in revenue on an annual basis, at the expense of Meta’s users, including Plaintiff L.S.

38. Throughout these product changes, re-designs, and launches, Facebook founder and CEO, Mark Zuckerberg, made public statements assuring the world that safety was Meta’s top priority. For example, in February of 2017, he made a post on his personal Facebook titled “Building Global Community,” in which he talked at length about how Meta is focused on safety, how it intends to use its AI to the fullest to keep users safe, and how amazing Facebook is for bringing communities together, promoting critically important social groups, and other statements that we now know to be untrue, and profoundly dangerous, given what was actually happening at Facebook and what Mr. Zuckerberg knew about the harms his products were causing American youth.

39. By 2017, however, Meta employees were already reporting to management that Facebook was causing harmful dependencies. Meta was studying and purposefully designing its products in a manner that required sunk cost and system effects that would ensure its ability to lock-in its young users – that is, to make sure that they would never leave. Meta was marketing to children under 18, as well as children under 13 despite clear legal mandates that it could not knowingly allow children under 13 on its social media products. And Meta leadership, Mark Zuckerberg himself, was actively rejecting proposed re-designs and fixes that would have minimized the harms Meta’s products were actively causing to children and teen users, users like minor plaintiff L.S. Meta failed to act because engagement was its first priority and teens and children its primary target for acquisition – Meta had long since identified teens as its key to success, including because teen users could influence and encourage their younger brothers and sisters to use Meta’s products.

40. Meta also creates images and GIFs for users to post on their videos and pictures in connection with its Facebook and Instagram products. Meta has also acquired publishing rights to thousands of hours of music, which it provides to its users to attach to

the videos and pictures that they post on Facebook and/or Instagram. The GIFs, images, and music are integral to the user's post and are, in fact, designed to encourage posting. Indeed, in many cases, the only content in a user's post is the image, GIF, or music supplied by Meta. When users incorporate images, GIFs, and music supplied by Meta into their postings, Meta is functioning as a co-publisher of such content. A Facebook and/or Instagram user who incorporates images, GIFs, or music supplied by Meta into their post is functionally equivalent to a novelist who incorporates illustrations into their story. Instagram can no longer characterize the images, GIFs, and music it supplies to its users as third-party content, just as the novelist cannot disclaim responsibility for illustrations contained in their book. Meta has made the deliberate decision to collaborate with its users in this regard and, as evidenced by Meta's internal documents, Meta's decision is motivated by the fact that such collaboration results in increased engagement, advertising revenue, and other profits for Meta itself.

41. Meta also has ownership and/or licensing, and other legal, rights in all third-party content, such that it is not "third-party content" at all. To name only one example, in 2012, Meta revised its Instagram Terms of Service to the following,⁴

To help us deliver interesting paid or sponsored content or promotions, you agree that a business or other entity may pay us to display your username, likeness, photos (along with any associated metadata), and/or actions you take, in connection with paid or sponsored content or promotions, without any compensation to you.

42. Its current terms (effective January 4, 2022) are different, but still grant Meta the right to use all third-party content at Meta's sole and unilateral discretion and in connection with all its social media products.

43. Meta directly profits from the videos and pictures its users create in collaboration with Meta, as described above.

⁴ <https://www.theverge.com/2012/12/18/3780158/instagrams-new-terms-of-service-what-they-really-mean>

44. Meta knows that it is harming teens yet, when faced with recommendations that would reduce such harms, Meta's leadership consistently opted for prioritization of profit over the health and well-being of its teen users.

45. Meta knows that underage users are on its platform and has deliberately designed its product in a manner intended to evade parental authority and consent, including but not limited to Meta's failure to verify age and identity, provision of multiple accounts, marketing aimed at informing minors that they can open multiple accounts, failure to provide a point of contact for parents to notify Meta of lack of consent, marketing aimed at children and that encourages children to use Meta's social media product without consent, and multiple other features and conduct by Meta aimed at ensuring young users have a means to access Meta's social media products no matter the circumstances.

46. The Facebook and Instagram products are used by many millions of children every day, children who have become addicted to these Meta products because of its design and product features, children like L.S., to the point where parents cannot remove all access to these products without self-harm, suicide, and other foreseeable consequences of serious addiction, and where such cessation of use would require professional intervention.

B. Snap and It's Snapchat Product

47. Snapchat was founded in 2011, by three Stanford college students, and was originally called *Pictaboo*. It started as a simple app with the idea that it would be nice to be able to send photos to friend that would disappear. Months after its launch, *Pictaboo* had only amassed 127 users,⁵ so it changed its name to Snapchat and began marketing to and targeting high school students. Within a year, and with its new target audience of children and teens, Snapchat grew to more than 100,000 users.

48. The Snapchat product became well-known for its self-destructing content feature. Specifically, the Snapchat product allows users to form groups and share posts or

⁵ See <https://frozenfire.com/history-of-snapchat/>

“Snaps” that disappear after being viewed by the recipients. However, the Snapchat social media product quickly evolved from there, as its leadership made design changes and rapidly developed new product features intended to and that did increase popularity among minors.

49. In 2012, Snap added video capabilities to its Snapchat product, pushing the number of “snaps” to 50 million per day; in 2013, “Stories” and “Chat” features; in 2014, live video chat capabilities, text conversations, “Our Story,” Geofilters, and Snapcash; in 2015, Discovery, QR code incorporation, and facial recognition software; in 2016, Memories and Snapchat Groups.

50. By 2015, advertisements were pervasive on Snapchat and, by 2018, 99% of Snap’s total revenue came from advertising, according to internal company records. In other words, Snap decided to monetize its userbase and, from that point forward, began changing its product in ways that made its product even more harmful to users but that paved the way for growth, engagement, and profits for Snap and its leadership and investors.

51. Snap also took care to patent its social media inventions along the way. To name only some examples (*see* <https://patents.justia.com/assignee/snapchat-inc>),

Gallery of messages from individuals with a shared interest

Patent number: 9385983

Abstract: A machine includes a processor and a memory connected to the processor. The memory stores instructions executed by the processor to receive a message and a message parameter indicative of a characteristic of the message, where the message includes a photograph or a video. A determination is made that the message parameter corresponds to a selected gallery, where the selected gallery includes a sequence of photographs or videos. The message is posted to the selected gallery in response to the determination. The selected gallery is supplied in response to a request.

Type: Grant

Filed: December 19, 2014

Date of Patent: July 5, 2016

Assignee: Snapchat, Inc.

Inventor: Timothy Sehn

Prioritization of messages within gallery

Patent number: 9430783

Abstract: In some embodiments, a computer implemented method of processing messages may include creating a gallery using messages received from user devices; scanning the messages to identify a selected message of messages; receiving, from an owner of the brand, a prioritization of the selected message; prioritizing, in response to the prioritization, the selected message in the gallery; and supplying the gallery to a user device for display to a user of the user device.

Type: Grant

Filed: July 24, 2015

Date of Patent: August 30, 2016

Assignee: Snapchat, Inc.

Inventor: Timothy Michael Sehn

Content delivery network for ephemeral objects

Patent number: 9407712

Abstract: A computer implemented method includes receiving an object scheduled for automatic deletion after a specified viewing period, a specified number of views or a specified period of time. Object push criteria are evaluated. The object is pushed to an edge server cache in response to evaluating. The object is served in response to a request for the object.

Type: Grant

Filed: December 21, 2015

Date of Patent: August 2, 2016

Assignee: Snapchat, Inc.

Inventor: Timothy Sehn

Apparatus and method for supplying content aware photo filters

Patent number: 9407816

Abstract: A server includes a photo filter module with instructions executed by a processor to identify when a client device captures a photograph. Photograph filters are selected based upon attributes of the client device and attributes of the photograph. The photograph filters are supplied to the client device.

Type: Grant

Filed: December 21, 2015

Date of Patent: August 2, 2016

Assignee: Snapchat, Inc.

Inventor: Timothy Sehn

Content delivery network for ephemeral objects**Patent number:** 9237202**Abstract:** A computer implemented method includes receiving an object scheduled for automatic deletion after a specified viewing period, a specified number of views or a specified period of time. Object push criteria are evaluated. The object is pushed to an edge server cache in response to evaluating. The object is served in response to a request for the object.**Type:** Grant**Filed:** October 8, 2014**Date of Patent:** January 12, 2016**Assignee:** Snapchat, Inc.**Inventor:** Timothy Sehn**Method and system for integrating real time communication features in applications****Patent number:** 9083770**Abstract:** A computer has a processor and a memory connected to the processor. The memory stores instructions executed by the processor to receive a real time communication request from a client device and perform an evaluation of the number of client devices associated with the real time communication request. The evaluation results in the coordination of peer-to-peer communications in the event of two client devices and an attempt to host a real time communication session using a first protocol in the event of three or more client devices. A second protocol for the real time communication session is invoked in the event that the attempt to host the real time communication session using the first protocol is unsuccessful.**Type:** Grant**Filed:** November 7, 2014**Date of Patent:** July 14, 2015**Assignee:** Snapchat, Inc.**Inventors:** Michael Dröse, Tadeusz Kozak, Kavan Antony Seggie, Dmitry Sobinov**User interface for accessing media at a geographic location****Patent number:** 9143681**Abstract:** A system and method for accessing a media item on a mobile device are described. The mobile device includes a media placement application and a media display application. The media placement application receives a selection of a media item generated by the mobile device. The media placement application generates access conditions for the media item based on geolocation and position information of the mobile device associated with the selected media item. The media display application monitors the geolocation and position of the mobile device and determines whether the geolocation and position of the mobile device meet the access conditions of the selected media item. The media display application generates a notification that the selected media item is available to view in a display of the mobile device in response to determining that the geolocation and position of the mobile device meet the access conditions of the selected media item.**Type:** Grant**Filed:** April 9, 2015**Date of Patent:** September 22, 2015**Assignee:** Snapchat, Inc.**Inventors:** Rylee Ebsen, Nathan Jurgenson, Ryan Marzolph, Evan Spiegel

52. By 2015, Snapchat had over 75 million monthly active users and was the most popular social media application amongst American teenagers in terms of number of users and time spent using the platform. Snapchat is now one of the most widely used social media

products in the world and is used by more than 69% of all U.S. teens (age 13 to 17).⁶ Snap estimates having between 92.8 and 96.6 million users in the U.S., at least 17 to 17.7 million of which are under the age of 18. Against this backdrop, Snap advertises and promotes its product as safe and fun—which could not be further from the truth.

53. Snapchat offers several unique messaging and data features. It is perhaps most famous for its self-destructing content design feature, which appeals to minors and makes it more difficult for parents to monitor their children’s social media activity. This is an inherently dangerous product feature both because it deprives parents of any way to monitor or control usage by their children – seemingly a blatant violation of Section 230(d) – but also, because it encourages and allows minor users to exchange harmful, illegal, and sexually explicit images with adults, and provides those same adults with a safe and efficient vehicle to recruit victims. Snapchat is a go-to application for sexual predators because of these product features.⁷

54. For years Snap has received reports of child abuse and bullying occurring through its product and because of its product features,⁸ yet has kept those features in place as removing them would result in considerable impact on the popularity of Snap’s social media product. Harmful and dangerous interactions likewise occur because of these and other Snapchat messaging features, which provide direct and unsupervised access to children and teens. But also, Snapchat is a dangerous product because it does not operate as advertised. Snap’s disappearing design and marketing of this feature is particularly harmful to teens who rely on Snap’s representations when taking and sending photos, only learning after the fact that recipients have means to save photos – and are often bullied, exploited,

⁶ See <https://www.smartinsights.com/social-media-marketing/social-media-strategy/snapchat-statistics/>

⁷ See, e.g., <https://phonespector.com/blog/what-are-the-dangers-of-snapchat-to-avoid/>

⁸ See, e.g., <https://www.forbes.com/sites/zakdoffman/2019/05/26/snapchats-self-destructing-messages-have-created-a-haven-for-child-abuse/?sh=411b8e1d399a> (Snapchat Has Become A ‘Haven for Child Abuse’ With Its ‘Self-Destructing Messages’).

and/or sexually abused as a direct result. These are harms known to Snap.

55. Snap has also developed images for users to decorate the pictures or videos they post, and Snap has developed Lenses which are augmented reality-based special effects and sounds for users to apply to pictures and videos users post on Snapchat, and World Lenses to augment the environment around posts. Snap also has acquired publication rights to music, audio, and video content that its users can incorporate in the pictures and videos they post on Snapchat. These images, Lenses, and licensed audio and video content supplied and created by Snapchat frequently make a material contribution to the creation or development of the user's Snapchat posts. Indeed, in many cases, the *only* content in a user's Snapchat post are images, Lenses, and licensed audio and video content supplied and created by Snapchat. When users incorporate images, Lenses, music, audio, and video content supplied by Snapchat posts, Snapchat makes a material contribution to the creation and/or development of their Snapchat postings and becomes a co-publisher of such content. When malign users incorporate images, Lenses, music, audio, and video content supplied by Snapchat to their posts, this enhances the psychic harm and defamatory sting that minor users experience from third-party postings on Defendant's platform.

56. Moreover, Snap contracts for legal rights in this third-party content, such that it is not "third-party content" at all. Snap's current Terms of Service grant Snap several, sweeping sets of legal rights, from licensing to ownership, as follows (and for example only as there are several provisions in Snap's Terms of Service that address legal rights over user content, comments, and other usage and activities),

3. Rights You Grant Us

Many of our Services let you create, upload, post, send, receive, and store content. When you do that, you retain whatever ownership rights in that content you had to begin with. But you grant us a license to use that content. How broad that license is depends on which Services you use and the Settings you have selected.

For all content you submit to the Services, you grant Snap and our affiliates a worldwide, royalty-free, sublicensable, and transferable license to host, store, cache, use, display, reproduce, modify, adapt, edit, publish, analyze, transmit, and distribute that content. This license is for the purpose of operating, developing, providing, promoting, and improving the Services and researching and developing new ones. This license includes a right for us to make your content available to, and pass these rights along to, service providers with whom we have contractual relationships related to the provision of the Services, solely for the purpose of providing such Services.

57. Snap directly profits from the videos and pictures and other content its users create in collaboration with Snap, as described above.

58. Snap knows that it is harming teens yet consistently opts for prioritization of profit over the health and well-being of its teen users.

59. The Snapchat product is used by many millions of children every day, children who have become addicted to the product a result of its design and product features, children like L.S., to the point where parents cannot remove all access to the Snapchat product without self-harm, suicide, and other foreseeable consequences of serious addiction, and where such cessation of use would require professional intervention.

C. TikTok and its TikTok Product

60. TikTok is known as a video-sharing app, where users can create, share, and view short video clips, and is highly integrated with its Chinese parent, ByteDance.

61. Known in China as Douyin, TikTok hosts a variety of short-form user videos, from genres like pranks, stunts, tricks, jokes, dance, and entertainment with durations from 15 seconds to ten minutes. TikTok is the international version of Douyin, which was originally released in the Chinese market in September 2016. In 2017, TikTok was launched

for iOS and Android in most markets outside of mainland China; however, it became available worldwide only after merging with another Chinese social media service, Musical.ly, on August 2, 2018.

62. TikTok has been downloaded more than 130 times in the U.S. and it was ranked by Cloudflare as the most popular website of 2021. “TikTok was the world’s most-visited website in 2021, overtaking YouTube in US watch time and Facebook in app downloads for the first time.”⁹

63. TikTok exclusively controls and operates the TikTok platform for profit, which creates advertising revenue through maximizing the amount of time users spend on the platform and their level of engagement. The greater the amount of time that young users spend on TikTok, the greater the advertising revenue TikTok earns.

64. Users on TikTok who open the TikTok application are automatically shown an endless stream of videos selected by TikTok’s technology to show content on each user’s For You Page (“FYP”) based upon each user’s demographics, likes, prior activity on the app, and other factors and data points known only to TikTok.

65. TikTok has designed its recommendation technologies (a/k/a algorithms) to addict users and cause them to spend as much time on the application as possible through advanced analytics that create a variable reward system tailored to user’s viewing habits and interests. There are four main goals for TikTok’s algorithm: which the company translates as “user value,” “long-term user value,” “creator value,” and “platform value.”

66. An internal TikTok document was leaked, which document is titled “TikTok Algo 101.” This document was created by TikTok’s engineering team in Beijing and offers details about both the app’s mathematical core and insight into the company’s understanding

⁹ Emily Baker-White, *Inside Project Texas, TikTok’s Big Answer To US Lawmakers’ China Fears*, BuzzFeed, Mar. 10, 2022, <https://www.buzzfeednews.com/article/emilybakerwhite/tiktok-project-texas-bytedance-user-data>

of human nature. The document explains that in the pursuit of the company's "ultimate goal" of adding daily active users, it has chosen to optimize for two closely related metrics in the stream of videos it serves: "retention" — that is, whether a user comes back — and "time spent." The document offers a rough equation for how videos are scored, in which a prediction driven by machine learning and actual user behavior are summed up for each of three bits of data: likes, comments and playtime, as well as an indication that the video has been played.

67. A recent Wall Street Journal report revealed how TikTok relies heavily on how much time users spend watching each video to steer them toward more videos that will keep them scrolling, and that process can sometimes lead young viewers down dangerous rabbit holes, and toward content that promotes suicide or self-harm.

68. Another article, by the New York Times, explained how TikTok markets itself as an "artificial intelligence company." "The most obvious clue is right there when you open the app: the first thing you see isn't a feed of your friends, but a page called 'For You.' It's an algorithmic feed based on videos you've interacted with, or even just watched. It never runs out of material. It is not, unless you train it to be, full of people you know, or things you've explicitly told it you want to see. It's full of things that you seem to have demonstrated you want to watch, no matter what you actually say you want to watch ... Imagine a version of Facebook that was able to fill your feed before you'd friended a single person. That's TikTok." ¹⁰

69. TikTok's recommendation technologies also and often work in concert with other social media provider technologies. For example, a teen may first learn about a harmful topic through Meta's recommendation technologies on Instagram, which potential harm is then identified by TikTok's algorithm, based on any number of unknown factors, and the

¹⁰ John Herrman, *How TikTok is Rewriting the World*, N.Y. Times, Mar. 10, 2019, available at <https://www.nytimes.com/2019/03/10/style/what-is-tik-tok.html>

TikTok product will amplify and promote that same harm through a virtual series of how-to videos. These are inherently dangerous and harmful product features, particularly when aimed at children.

70. TikTok also features and promotes various “challenges” where users film themselves engaging in behavior that mimics and “one ups” other users posting videos related to a particular challenge. TikTok promotes users creating and posting videos of challenges identified by a system of hashtags that are promoted within TikTok’s search feature.

71. TikTok’s app and algorithm have created an environment in which TikTok “challenges” are widely promoted and result in maximum user engagement and participation, thus financially benefitting Defendants. At the same time TikTok “challenges” involve users filming themselves engaging in behavior that mimics and often times “one-ups” other users posting videos performing the same or similar conduct, and these TikTok “challenges” routinely involve dangerous or risky conduct.

72. TikTok’s recommendation technologies present these often-dangerous “challenges” to users on their FYP and encourages users to create, share, and participate in the “challenge.”

73. Moreover, TikTok’s algorithm products suffer from serious algorithmic bias, including as it relates to race and low SES. Upon information and belief, TikTok is aware of these harms, including the fact that its algorithm pushes higher volumes of violent and dangerous content to members of protected classes. This is harmful content these users, users like the minor plaintiffs, would not have seen but for TikTok’s product design and programming.

74. These are just some examples of how TikTok operates its product to generate profit, at the expense of the health and well-being of its users, particularly its child and teen users. And, of course, TikTok takes care to patent various aspects of its technologies. To name only a few examples (see <https://patents.justia.com/assignee/beijing-bytedance->

[network-technology-co-ltd](#)),

Method and device for generating ranking model

Patent number: 11403303

Abstract: The embodiment of the present application discloses a method and a device for generating a ranking model. A specific embodiment of the method includes: acquiring a sample set, executing following training steps: for the samples in the sample set, inputting the query information, the first position document and the second position document in the sample into an initial model, respectively obtaining scores of the input documents, and determining a target value of the sample based on the obtained scores, a clicked bias of a first position and an unclicked bias of a second position, updating the initial model based on the target value of each sample; determining whether the initial model is completely trained; and in response to determining that the initial model is completely trained, determining the updated initial model as the ranking model.

Type: Grant

Filed: September 7, 2018

Date of Patent: August 2, 2022

Assignee: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD.

Inventors: Yang Wang, Ziniu Hu, Qu Peng, Hang Li

Method and device for processing feature point of image

Patent number: 11403835

Abstract: A method and a device for processing feature points of an image are provided. A specific embodiment of the method includes obtaining an image to be processed; determining weights of the feature points of the image to be processed to obtain a weight set; and according to the weights, selecting target numbered feature points as target feature points of the image to be processed. The weights include a texture weight; the texture weight and a color change scope of pixels in a target sized image region in which the feature points locate are directly proportional. The embodiment can reduce the number of feature points of the image, and further release the storage pressure of feature points regarding the image.

Type: Grant

Filed: December 10, 2018

Date of Patent: August 2, 2022

Assignee: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD.

Inventors: Cheng Yang, Yi He, Lei Li

Bidirectional optical flow based video coding and decoding

Patent number: 11394991

Abstract: Devices, systems and methods for sample refinement and filtering method for video coding are described. In an exemplary aspect, a method for video processing includes modifying, for a conversion between a block of a video and a bitstream representation of the video, a refinement value for a prediction sample in the block by applying a clipping operation to refinement value. The refinement value is derived based on a gradient value of an optical flow coding process. An output of the clipping operation is within a range. The method also includes refining the prediction sample based on the refinement value and performing the conversion based on the refined prediction sample.

Type: Grant

Filed: August 18, 2021

Date of Patent: July 19, 2022

Assignees: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD., BYTEDANCE INC.

Inventors: Hongbin Liu, Li Zhang, Kai Zhang, Jizheng Xu, Yue Wang

Method and an apparatus for displaying information flow, a storage, an electronic device

Patent number: 11334707

Abstract: A method and an apparatus for displaying information flow, a storage medium and an electronic device are provided. The method includes: dividing a predetermined display time period for the first-type display information into multiple sub-time periods; determining, for the sub-time periods, a segmented display target of each piece of first-type display information in the sub-period based on a display target of the first-type display information in the predetermined display time period; and determining, for each display position, target display information to be allocated to the display position from the information flow, based on an estimated click-through rate of the display position, a proposed value of the second-type display information, historical display data of the first-type display information, and a segmented display target of the first-type display information in a current sub-time period.

Type: Grant

Filed: November 14, 2018

Date of Patent: May 17, 2022

Assignee: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD.

Inventors: Shenke Xiao, Pingzhong Tang, Lihua Zhang, Xiwang Yang, Changsheng Gu

Bi-prediction with weights in video coding and decoding

Patent number: 11172196

Abstract: A video coding or decoding method includes using history-based motion vector prediction (HMVP) for conversion between multiple video blocks including a current block of video and a bitstream representation of the multiple video blocks such that for a uni-predicted block that for which a single reference picture is used for motion compensation, refraining from updating a look-up table for HMVP candidates for the uni-predicted block. The video coding or decoding method further includes performing the conversion using look-up tables for the multiple video blocks.

Type: Grant

Filed: October 20, 2020

Date of Patent: November 9, 2021

Assignees: BEIJING BYTEDANCE NETWORK TECHNOLOGY CO., LTD., BYTEDANCE INC.

Inventors: Li Zhang, Kai Zhang, Hongbin Liu, Yue Wang

75. TikTok markets itself as a family friendly social media application, and markets to children and teens.

76. TikTok exclusively controls and operates the TikTok platform for profit, which like Facebook, Instagram, and Snapchat, creates advertising revenue through maximizing the amount of time users spend on their platforms. Accordingly, while TikTok purports to have a minimum age requirement of 13-years-old, it does little to verify user age or enforce its age limitations despite knowledge that underage use is widespread.

77. In fact, underage TikTok users will often post videos of themselves in which they clearly are not old enough to be using the TikTok social media product. On information and belief, TikTok's sophisticated algorithms can identify when a user has crooked teeth or

a crack in their bedroom wall, so there is little question that those same algorithms can identify underage children in posted videos. But also, TikTok has actual knowledge of underage users. For example, in July 2020, TikTok reported that more than a third of its 49 million daily users in the United States were 14 years old or younger. And while some of those users were 13 or 14, at least one former employee reported that TikTok had actual knowledge of children even younger based on videos posted on the TikTok platform – yet failed to promptly take down those videos or close those accounts.¹¹ In fact, TikTok regularly knows or should know of underage users with accounts and who post videos on its platform, whether because of its algorithms, viewing by TikTok employees, and/or flagging by other TikTok users. In many such instances, TikTok does not suspend the account, require age verification, or notify the underage user’s parents of such prohibited use.

78. TikTok does not seek parental consent for underage users or provide warnings or adequate controls that would allow parents to monitor and limit the use of TikTok by their children. TikTok does not verify user age, enabling and encouraging teens and children to open TikTok accounts, providing any age they want, without parental knowledge or consent.

79. Further, based on TikTok data leaked to the New York Times, internal TikTok documents show that the number of daily U.S. users in July of 2020 estimated by TikTok to be 14 or young—18 million—was almost as large as the number of over-14 users, around 20 million. While the rest of TikTok’s U.S. users were classified as being “of unknown age.”¹²

80. TikTok also does not rely on users’ self-reported age to categorize them and knows when it has underage users engaged in harmful activities on its platform. TikTok has algorithms through which it creates estimated or approximate age for its users, including

¹¹ Raymond Zhong & Sheera Frenkel, *A Third of TikTok’s U.S. Users May Be 14 or Under, Raising Safety Questions*, N.Y. Times, Aug. 14, 2020, available at <https://www.nytimes.com/2020/08/14/technology/tiktok-underage-users-ftc.html>

¹² *Id.*

facial recognition algorithms that scrutinize profile pictures and videos, as well as other methods through which it can estimate age with reasonable certainty. TikTok knows that users under the age of 13 are using its social media product, including to post videos of themselves, which videos are public by default and result in harm to these underage users.¹³

81. TikTok has tried to boost engagement and keep young users hooked to its social media product by any means necessary.

82. TikTok has developed images and memes to enact images for users to decorate the videos they post. TikTok has also developed memes and other images for users to apply to images they post on TikTok. TikTok also has acquired publication rights to music that its users can incorporate in the pictures and videos they post on TikTok. When users incorporate images, memes and music supplied by TikTok into their postings, TikTok becomes a co-publisher of such content. A TikTok user who incorporates images, memes and musical content supplied by TikTok into their posts is functionally equivalent to a novelist who incorporates illustrations into her story. TikTok can no longer characterize the images, memes, and musical content it supplies to its users as third-party content as the novelist can disclaim responsibility for illustrations contained in her book.

83. TikTok contracts for legal rights to this third-party content, such that it is not “third-party content” at all. TikTok’s current Terms of Service grant TikTok sweeping sets of rights as follows, and for example only,

You or the owner of your User Content still own the copyright in User Content sent to us, but by submitting User Content via the Services, you hereby grant us an unconditional irrevocable, non-exclusive, royalty-free, fully transferable, perpetual worldwide licence to use, modify, adapt, reproduce, make derivative works of, publish and/or transmit, and/or distribute and to authorise other users of the Services and other third-parties to view, access, use, download, modify, adapt, reproduce, make derivative works of, publish and/or transmit your User Content in any format and on any platform, either now known or hereinafter invented.

¹³ *Id.*

84. TikTok directly profits from the videos and pictures and other content its users create in collaboration with TikTok, as described above.

85. The TikTok product is used by many millions of children every day, children who have become addicted to the product a result of its design and product features, children like L.S., to the point where parents cannot remove all access to the TikTok product without self-harm, suicide, and other foreseeable consequences of serious addiction, and where such cessation of use would require professional intervention.

D. Defendants Designed Inherently Dangerous Products and Failed to Warn

86. Defendants' social media products contain countless features that serve no critical purpose relating to product functionality or a user's ability to access other users' content. While this complaint addresses known features, on information and belief, there are countless other features currently unknown to Plaintiffs for the simple reason that these Defendants have concealed the truth and operate with zero transparency. Upon information and belief, it is in the public interest for this Court to permit discovery of all such product features and processes. The following describe just some such features and defective designs.¹⁴

87. Defendants design their products to evade parental consent and control.

88. Defendants claim to impose age restrictions for use of their products, including that users must be at least 13 and must (or should, in the case of Defendant Meta) obtain parental consent if under the age of 18. Nevertheless, Defendants provide access to millions of minors who are under 13, or under 18 but lack parental consent. Defendants know or should know that these users are not duly authorized but provide them with access regardless and because Defendants view children and teens as valuable assets. Defendants have turned a blind eye in the name of corporate profit.

¹⁴ Defendants operate with so little transparency and so much obfuscation that discovery is needed to ascertain the full extent to which they designed and are operating harmful and defective products.

89. In the case of Defendant Meta, Meta has and utilizes technologies that can ascertain the actual age of each user (referred to by Meta as the approximate or estimated age) with reasonable certainty. In the United States (where Meta can collect personal and private data to an unprecedented degree), Meta uses these technologies for assessment and advertising purposes. Such use results in internal documents and assessments of underage users, including users at least as young as 10 years old. Despite having actual data confirming the existence of underage users (children who do not belong on Meta's platforms), Meta takes no action – it takes no action because it is making considerable sums of money from these unauthorized (if not unlawful) accounts.

90. Less is known about the other defendants' technologies, however, on information and belief, all defendants have actual knowledge of underage users, and refuse to act (unless forced) to secure their fortunes.

91. Defendants design their products to encourage and aid users' evasion of parental oversight—such as with Defendant Snapchat's self-destructing content design feature—and do not notify parents concerning the amount of time their children spend on their platforms, what hours of the day they are connected, or when they are contacted or solicited by adults. Defendants do not verify emails or phone numbers, permit and encourage multiple accounts (with the knowledge that children use these multiple account features to hide accounts from their parents), and otherwise refuse to enforce their age limitations in any reasonable or meaningful manner.

92. Defendants' public profile settings are inherently dangerous and defective when utilized in connection with minor users. Until mid-2021, for example, Defendant TikTok made all users' profiles "public" by default. Public profile settings allow strangers to view and message underage users, which Defendants determined to be good for engagement. However, this means that they are exposing children to strangers in a manner against which parents cannot protect. Each of these defendants could set all minor accounts to private by default and, even better, each of these defendants could restrict all minor

accounts to private until the user reaches the age of majority in his, her, or their state.

93. Public default settings are unnecessary and serve no critical purpose as to product functionality or a user's ability to access content posted by other users. They do, however, encourage and provide adult users the ability to identify and access, minors for the purpose of sexual abuse and exploitation—a dangerous defect known to these Defendants.

94. Defendants' direct messaging and recommendation technologies are inherently dangerous and defective when utilized in connection with minor users.

95. Defendants' direct-messaging products provide other users—including anonymous and semi-anonymous adult users, bullies under the age of eighteen, and any other stranger for whom a parent would not allow access—with unrestricted and unsupervised access to minor users. Minor users lack the cognitive ability and life experience to identify online grooming behavior by prurient adults and the psychosocial maturity to decline invitations to exchange salacious material and mass-messaging capabilities. Defendants' products further allow direct messaging with and by minors without parental notification.

96. Defendants' direct messaging products are unnecessary and serve no critical purpose as to product functionality or a user's ability to access content posted by other users. They are, however, incredibly profitable in terms of engagement and retention of teen users; as well as engagement and retention of adult users who want access to vulnerable children and teens outside the purview of their parents.

97. Each of these defendants could restrict direct messaging products so that minor users could only send or receive direct messages with persons approved by their parents and/or already on their "friend" list or equivalent. They chose to not do so for economic reasons – their economic reasons, not those of their users.

98. Defendants also employ recommendation technologies, affirmatively sending recommendations to users regarding people or groups they should "friend," join, or otherwise connect. In Defendant Snapchat's case, for example only, this is called "Quick Add." Defendant Meta calls this "People You May Know" for its Facebook and Instagram products.

Whatever the name, these technologies function in a similar (if not the same) manner. Specifically, user data and other information obtained through Defendants' data collection technologies (including information such as age and gender) affirmatively directs users to one another, and pushes messages recommending that the users connect, follow, friend, or otherwise.

99. Defendants know that these user recommendation technologies facilitate and contribute to most of the adult/minor grooming and exploitation that occurs on their platform. In Meta's case, the estimate is upwards of 70%. To be clear, this means that Defendants' technologies, processes, and related devices are affirmatively finding, recommending, and connecting predatory adult users to vulnerable minors, the Defendants know their technologies is causing these harms, and that Defendants continue to utilize these technologies regardless and because they are otherwise good for Defendants' business

100. Moreover, each of the above products is dangerous alone, but they are substantially more dangerous when combined. For example, Defendants' direct-messaging products are more dangerous when coupled with minor accounts of which parents have no knowledge (or means to monitor) and do not consent; and when combined with Defendants' public profile and recommendation features.

101. Defendant Snapchat's ephemeral messaging feature is also dangerous because it encourages predators to move conversations over to Snapchat where they know it will be harder for them to get caught because of the disappearing messages feature—with the danger compounded by the fact that messages do not always disappear. That is, Snapchat's ephemeral messaging feature is inherently deceptive and dangerous, as is Snap's advertising of this feature, as it lulls users into a false sense of security – for example, many young users, once convinced to send salacious pictures, agree only to do so via Snapchat and with the belief that the photo will disappear. Instead, they are often bullied, extorted, and otherwise harassed, abused, and embarrassed as a result. In some cases, this exact scenario has led to the foreseeable consequence of suicide, yet Snap continues to market its product to

children as one where messages disappear.

102. The above direct-messaging and recommendation features connect complete strangers who would otherwise have no contact, but they serve no purpose as to platform functionality or the ability to access content posted by others. They do, however, increase Defendants' engagement (and profits) by serving up photos of minors to complete strangers and then providing those same complete strangers with unsupervised access to those minors.

103. Snap also has a "My Eyes Only" product, which many parents do not know about. Snap's My Eyes Only Product encourages and enables young users to hide harmful content from parents by allowing them to hide content in a special tab that requires a passcode, and where content cannot be recovered – even by Snap itself – without the correct passcode. The content self-destructs if a user attempts to access the hidden folder with the wrong code. My Eyes Only has no practical purpose or use, other than to hide potentially harmful content from parents and/or legal owners of the devices used to access Snap. Moreover, while this information and evidence should be in Snap's possession and control, it has designed this product in a way that causes the permanent loss of relevant and often incredibly material and incriminating evidence in the event of products liability lawsuit, like this one.

104. Defendants design countless addictive product features, which features are meant to result in user dependencies, particularly among minors. Defendant all know that these features are addictive, in many cases have been asked to fix and/or remove such features, and in all cases have chosen profits over user safety and wellbeing. These addictions among U.S. children and teens are an epidemic, and a deadly one at that.

105. Defendants' selection and recommendation technologies select content for minor users for the express purpose of habituating users to the Defendants' social media products. These technologies create addiction in minor users on a content-neutral basis by adapting to promote whatever content will trigger minor users' engagement and maximize their screen time. Defendants have purposely designed their products to increase users'

engagement, and refuse to redesign their products, despite their knowledge of severe user harm resulting from this design.

106. Defendants have purposely designed their products to be as addictive as possible and have actual knowledge of the harm these addictive features cause.

107. Defendants use unknown and changing rewards that are designed to prompt users who use their products in excessive and dangerous ways. Defendants knowingly or purposely designed their products to encourage addictive behaviors. For example,

- a. Instagram is designed around a series of features that do not add to the communication utility of the application, but instead seek to exploit minor users' susceptibility to persuasive design and unlimited accumulation of unpredictable and uncertain rewards. Examples of this include but are not limited to "likes," "followers," algorithm-controlled feed, and unlimited scrolling features.
- b. Snapchat features a series of rewards including trophies, streaks, and other signals of social recognition. These variable and unknown reward and reminder systems are particularly addictive, especially in the case of children and teens. Other product examples include recommendation technologies and unlimited scrolling features.
- c. TikTok has designed its recommendation technologies to addict users and cause them to spend as much time on the application as possible through advanced analytics that create a variable reward system tailored to users' viewing habits and interests. TikTok also offers unlimited scrolling features.

108. The Snap Streak feature is unique to Defendant Snap's product and is one of the most – if not the most – addictive products available "especially to teenagers."¹⁵ Snap

¹⁵See <https://abcnews.go.com/Lifestyle/experts-warn-parents-snapchat-hook-teens-streaks/story?id=48778296>

knows that its Snap Streak product is addictive and has known for years but continues to provide that product to teens and children.

109. Defendant Meta performed extensive testing on its “like” button feature. Meta determined that its “like” product feature is a source of social comparison harm for many of its users. This is not surprising given that several of the Meta employees involved in creating that feature have since left Meta and have spoken publicly about the product’s addictive nature and harmfulness.¹⁶ What is unacceptable, however, is that Meta knows that its product feature is harmful, particularly to teens and young adults, and could easily hide or remove that product feature. But does not, for fear that hiding “likes” would result in lower engagement and less advertising revenue. This is a blatant example of Defendants choosing their own profits over human life and, specifically, the health and well-being of a significant number of teens, including L.S.. And, upon information and belief, all Defendants know or should know of the harms they are causing with similar product features.

110. These product features serve no purpose other than creating dependencies on Defendants’ products by children and teens, which dependencies in turn cause sleep deprivation, anxiety, depression, anger, shame, interpersonal conflicts, and other serious harms to mental and physical health.

111. Defendants send push notifications and emails to encourage addictive behavior and to increase use of their social media products. Defendants’ communications are triggered and based upon information each of these defendants collects from and about their users, and Defendants “push” these communications to teen users in excessive numbers and disruptive times of day. These notifications are specifically designed to, and do, prompt them to open Defendants’ social media products and view the content Defendants selected, increasing sessions, and resulting in greater profits to Defendants. Even the format of these

¹⁶ See, e.g., <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>.

notifications has been designed to pull users back on to the social media platform—irrespective of a user’s health or wellbeing.

112. Defendant Snap also allows users to enable the sharing of their location, through a tool called Snap Map, which allows the users’ followers (and the public for Snaps submitted by the users) to see the user’s location on a map. At all times relevant, this feature was available to all users, including minors. This is an inherently dangerous product feature, which serves no practical purpose – but that does provide strangers and predators with access to the location of minor victims. This product feature has directly contributed to stalking and other, physical harms and assaults perpetrated on minors, and these are harms known to Snap.

113. Defendants’ content recommendation systems identify and promote harmful content. Defendants purposefully program these systems to prioritize number of interactions and not quality of interactions. Worded otherwise, Defendants promote and amplifies content based on engagement objectives and not the health and well-being of users, which renders their social media products inherently dangerous and defective, particularly when used by teens and children.

114. Defendants are aware of the harms their content recommendation technologies cause and chose to not disclose those harms or fix their technologies – for example, by programming their systems for safety or user benefit over profit or by simply not using those systems, which serve no practical function, in the case of minor users. For these reasons, the harms were unknown to all users and could not reasonably be avoided.

115. More to the point, Defendants’ content recommendation technologies serve no countervailing benefit to consumers. Users are perfectly capable of running their own searches, as they do with any number of available search engines. And if the harmful third-party content were being provided in that manner – *i.e.* if this was content requested and sought out by users as opposed to content identified and force fed to users as means to make Defendants more money – it would not be at issue in this case.

116. Defendant Meta’s group recommendation systems also direct users, including

children and teens, to harmful and in some cases deadly groups. Meta is aware of these harms but has also determined that the more users it can connect to one another (including adult and child connections) the more likely it is to retain those users for the long term. This includes predators. That is, Meta has implicitly (if not explicitly) determined that helping predators find children is good for its bottom line.

117. These are just known examples, and Plaintiffs believe that they will identify other examples of harmful product features through discovery in this case.

118. What is known is that Defendants have deliberately designed their products this way to increase engagement; employ invasive, surreptitious means to operate these technologies; fail to warn users or their parents of these dangers known only to Defendants; and refuse to restrict their use of these products in connection with minors' accounts or otherwise make these products safe, despite knowledge of the harms perpetrated on American youth in general and on Plaintiffs in particular.

119. The cost of designing safer products and fixing known defects is negligible. In fact, each of the above examples could be addressed in a matter of hours, not days. These products serve no purpose for consumers, and the benefit of making the necessary changes would be high in terms of reducing the quantum of mental and physical injury sustained by minor users and their families.

120. But also, each of these Defendants has developed artificial intelligence technology that detects adult users of who send sexually explicit content to children and receive sexually explicit images from children. These technologies furnish Meta, Snap, and TikTok with actual knowledge that a significant number of minor users of their products are solicited to send, and do send, sexually explicit photos and videos of themselves to adult users in violation of 18 U.S.C. § 1591(a)(1)-(2). Defendants *could* protect their minor users, but in many instances, do not.

E. Defendants' Social Media Products are Products

121. Facebook, Instagram, Snapchat, and TikTok are products that are designed and manufactured by Meta, Snap, and TikTok, respectively. These products are designed to be used by children and are actively marketed to children throughout the world.

122. Defendants' products are designed to be used by minors and are actively marketed to minors across the United States. Defendants market to minors through their own marketing efforts and design. But also, Defendants work with and actively encourage advertisers to create ads targeted at and appealing to teens, and even to children under the age of 13. Defendants spend millions of dollars researching, analyzing, and experimenting with young children to find ways to make their products more appealing and addictive to these age groups, as these age groups are seen as the key to Defendants' long-term profitability and market dominance.

123. Defendants are aware that large numbers of children under the age of 18 use their products without parental consent. They design their products in a manner that allows and/or does not prevent such use to increase user engagement and, thereby, their own profits.

124. Defendants are aware that large numbers of children under the age of 13 use their products despite user terms or "community standards" that purport to restrict use to individuals who are 13 and older. They have designed their products in a manner that allows and/or does not prevent such use to increase user engagement and, thereby, their own profits.

125. Defendants refer to these social media products and product features as "products," and further, go to great lengths and expense to patent several aspects of their algorithms and other technologies – which patents Defendants could not obtain for abstract ideas and/or speech.

F. Defendants' Business Model is Based on Maximizing User Screen Time

126. Defendants advertise their products as "free," because they do not charge their users for downloading or using their products. What many users do not know is that, in fact, Defendants make a profit by finding unique and increasingly dangerous ways to capture user

attention and target advertisements to their users. Defendants receive revenue from advertisers who pay a premium to target advertisements to specific demographic groups of users in the applications. Defendants also receive revenue from selling their users' data to third parties.

127. The amount of revenue Defendants receive is based upon the amount of time and level of user engagement on their platforms, which directly correlates with the number of advertisements that can be shown to each user.

128. Defendants use unknown and changing rewards that are designed to prompt users who consume their social media products in excessive and dangerous ways. Defendants know, or in the exercise of ordinary care should know, that their designs have created extreme and addictive usage by their minor users, and Defendants knowingly or purposefully designed its products to encourage such addictive behaviors. This design conforms to well-established principles of operant conditioning wherein intermittent reinforcement provides the most reliable tool to maintain a desired behavior over time.

129. Facebook, Instagram, Snapchat, and TikTok are designed around a series of features that do not add to the communication utility of the application, but instead seek to exploit minor users' susceptibility to persuasive design and unlimited accumulation of unpredictable and uncertain rewards, including "likes" and "followers." In the hands of children, this design is unreasonably dangerous to the mental well-being of underage users' developing minds.

130. According to industry insiders, Defendants have employed thousands of psychologists and engineers to help make their products maximally addictive. For example, Instagram's "pull to refresh" is based on how slot machines operate. It creates an endless feed, designed to manipulate brain chemistry and prevent natural end points that would otherwise encourage users to move on to other activities.

131. Again, the amount of revenue Defendants receive is based upon the amount of time and user engagement on their platforms, which directly correlates with the number

of advertisements that can be shown to each user. In short, Meta, Snap, and TikTok opted for user engagement over the truth and user safety.

132. Meta, Snap, and TikTok know that their products are addictive, and that millions of teen users want to stop using them but cannot.

133. Meta, Snap, and TikTok engineer their products to keep users, and particularly young users, engaged longer and coming back for more. This is referred to as “engineered addiction,” and examples include features like bottomless scrolling, tagging, notifications, and live stories.

134. Meta, Snap, and TikTok spend billions of dollars marketing their products to minors and have deliberately traded in user harm for the sake of their already astronomical revenue stream.

G. Defendants Designed Complex Recommendation Technologies to Addict Teen Users

135. Defendants have intentionally designed their products to maximize users’ screen time, using complex algorithms designed to exploit human psychology and driven by the most advanced computer algorithms and artificial intelligence available to some of the largest technology companies in the world.

136. Defendants’ recommendation systems select content for minor users not based on what they anticipate the user will prefer or to enhance their social media experience, but rather for the express purpose of habituating users to the Defendants’ social media products. Defendants’ algorithms do not provide a neutral platform but rather specify and prompt the type of content to be submitted and determine particular types of content its systems promote.

137. In the words of one, high-level departing Meta employee,

In September 2006, Facebook launched News Feed. In October 2009, Facebook switched from chronological sorting to an algorithmic ranking. 10 years later, in July 2019, Sen. Josh Hawley introduced a bill to the US Senate that would ban features in app feeds, such as infinite scroll.

The response in 2006 was largely positive; the response in 2009 was negative from a vocal minority, but still largely positive; the response in 2019 was largely “lol, wut?” If I had to guess, the response to government regulation around engagement centric information feeds in 2026 will be “Omg finally”.

“Why We Build Feeds” (October 4, 2019), at p. 1.¹⁷

138. Defendants designed and have progressively modified their products to promote problematic and excessive use that they know is indicative of addictive and self-destructive use.

139. One of these features is the use of complex recommendation systems to select and promote content that is provided to users in an unlimited and never-ending “feed.” Defendants are aware that algorithm-controlled feeds promote unlimited “scrolling”—a type of use those studies have identified as detrimental to users’ mental health—however, this type of use allows Defendants to display more advertisements and obtain more revenue from each individual user.

140. Defendants also know that content that generates extreme psychological reactions in minor users is more likely to trigger their engagement than content that is benign. Defendants have designed algorithm-controlled feeds to promote content most likely to increase user engagement, which often means content that Defendants know to be psychologically stressful to their users. Content is selected not just based on individual users’ viewing history but also on the viewing history of their linked friends. Users are exposed to massive amounts of content that they would otherwise never see but for Defendants’

¹⁷ https://www.documentcloud.org/documents/21600853-tier1_rank_exp_1019

affirmative pushing of the content to their accounts.

141. The addictive nature of Defendants' products and the complex and psychologically manipulative design of their algorithms is unknown to ordinary consumers, particularly minors.

142. Defendants go to significant lengths to prevent transparency, including posing as a "free" social media platform, burying advertisements in personalized content, and making public statements about the safety of their products that simply are not true.

143. Defendants also have developed unique product features designed to limit, and have in other ways limited, parents' ability to monitor and prevent problematic use by their children.

144. Defendants' addiction-driven algorithms adapt to the social media activity of individual users to promote *whatever* content will trigger a particular user's interest and maximize their screen time. That is, prior to the point when Meta, Snap, and TikTok have addicted their users and are then able to influence user preferences, their algorithm designs do not distinguish, rank, discriminate, or prioritize between types of content. For example, if the algorithm can increase User One engagement with elephants and User Two engagement with moonbeams, then Defendants' algorithm design will promote elephant content to User One and moonbeam content to User Two. These types of algorithms are solely quantitative devices and make no qualitative distinctions between the nature and type of content they promote to users.

145. Meta, Snap, and TikTok's algorithms are not simply tools meant to facilitate the communication and content of others but are content in and of themselves. Defendants' algorithms do not function like traditional search engines that select content for users based on user inputs; they direct minor users to content based on far more than the individual users' viewing history. Defendants' algorithms make recommendations not simply based on minor users' voluntary actions but also the demographic information and social media activity of the users' friends, followers, and cohorts. The user data that Defendants' algorithms use to

select content therefore encompasses far more information than voluntarily furnished by a particular user and include private information about the user that Defendants discover through undisclosed surveillance of user behavior both online and offline.

H. Minor Users’ Incomplete Brain Development Renders Them Particularly Susceptible to Manipulative Algorithms with Diminished Capacity to Eschew Self-Destructive Behaviors and Less Resiliency to Overcome Negative Social Media Influences

146. The human brain is still developing during adolescence in ways consistent with adolescents’ demonstrated psychosocial immaturity. Specifically, adolescents’ brains are not yet fully developed in regions related to risk evaluation, emotional regulation, and impulse control.

147. The frontal lobes—and in particular the prefrontal cortex—of the brain play an essential part in higher-order cognitive functions, impulse control, and executive decision-making. These regions of the brain are central to the process of planning and decision-making, including the evaluation of future consequences and the weighing of risk and reward. They are also essential to the ability to control emotions and inhibit impulses. MRI studies have shown that the prefrontal cortex is one of the last regions of the brain to mature.

148. During childhood and adolescence, the brain is maturing in at least two major ways. First, the brain undergoes myelination, the process through which the neural pathways connecting different parts of the brain become insulated with white fatty tissue called myelin. Second, during childhood and adolescence, the brain is undergoing “pruning”—the paring away of unused synapses, leading to more efficient neural connections. Through myelination and pruning, the brain’s frontal lobes change to help the brain work faster and more efficiently, improving the “executive” functions of the frontal lobes, including impulse control and risk evaluation. This shift in the brain’s composition continues throughout adolescence and into young adulthood.

149. In late adolescence, important aspects of brain maturation remain incomplete, particularly those involving the brain’s executive functions and the coordinated activity of

regions involved in emotion and cognition. As such, the part of the brain that is critical for control of impulses and emotions and for mature, considered decision-making is still developing during adolescence, consistent with the demonstrated behavioral and psychosocial immaturity of juveniles.

150. The recommendation technologies in Meta, Snap, and TikTok's social media products are designed to exploit minor users' diminished decision-making capacity, impulse control, emotional maturity, and psychological resiliency caused by users' incomplete brain development. Defendants know, or in the exercise of reasonable care should know, that because their minor users' frontal lobes are not fully developed, they experience enhanced dopamine responses to stimuli on Defendants' social media platforms and are therefore much more likely to become addicted to Defendants' products; exercise poor judgment in their social media activity; and act impulsively in response to negative social media encounters. Defendants also know, or in the exercise of reasonable care should know, that minor users of their social media products are much more likely to sustain serious physical and psychological harm through their social media use than adult users. Nevertheless, Defendants knowingly designed their social media products to be addictive to minor users and failed to include in their product design any safeguards to account for and ameliorate the psychosocial immaturity of their minor users.

I. Defendants Misrepresent the Addictive Design of Their Social Media Products

151. Meta, Snap, and TikTok do not warn users of the addictive design of their product. On the contrary, Defendants actively conceal the dangerous and addictive nature of their products, lulling users and parents into a false sense of security. This includes consistently playing down their products' negative effects on teens in public statements and advertising, making false or materially misleading statements concerning product safety, and refusing to make their research public or available to academics or lawmakers who have asked for it.

152. Meta, Snap, TikTok have repeatedly represented to the public and governments around the world that their products are safe and not addictive. To name only a few examples,

- a. In or around July 2018, Meta told BBC News that “at no stage does wanting something to be addictive factor into” its product design process.
- b. Meta told U.S. Senators (i) in November 2020 that “We certainly do not want our products to be addictive”¹⁸ (ii) in March 2021 that Instagram is not addictive and that it does not cause harm to children and teens¹⁹ (iii) in September 2021, that Instagram is not addictive²⁰ and repeatedly denied the existence of causal research regarding harms to teens from Instagram use and testified that Meta’s overreaching goal is child safety: “We work tirelessly to put in place the right policies, products, and precautions so [young users] have a safe and positive experience.”²¹ (iv) in December 2021, that Instagram is not addictive²² and that its overarching goal is child safety.²³ Yet at all times relevant, Meta managers and designers were attending an annual conference (beginning in 2014 and held in Silicon Valley) called the Habit Summit, the primary purpose of which was to learn how to make products more habit-forming.

¹⁸ <https://www.tampafp.com/great-news-facebook-is-not-designed-to-be-addictive-according-to-zuckerberg/>

¹⁹ <https://www.congress.gov/117/meeting/house/111407/documents/HHRG-117-IF16-Transcript-20210325.pdf>, at p. 67, 107, 175.

²⁰ <https://www.rev.com/blog/transcripts/facebook-head-of-safety-testimony-on-mental-health-effects-full-senate-hearing-transcript> (“Sept. 30, 2021, Senate Hearing Transcript”), at 2:06:35; *see also id.* at 02:07:44 and 02:07:59 (Ms. Davis also denied that Meta’s business model includes getting users engaged for longer amounts of time).

²¹ *Id.* at 24:58, 01:47:29, 1:48:07, 1:48:20, 2:10:47, 33:46, and 40:41.

²² <https://www.commerce.senate.gov/2021/12/protecting-kids-online-instagram-and-reforms-for-young-users>, recording of December 8, 2021 Senate Hearing.

²³ <https://www.npr.org/2021/12/08/1062576576/instagrams-ceo-adam-mosseri-hears-senators-brush-aside-his-promises-to-self-poli>

- c. Snap's Vice President of Global Public Policy, Jennifer Stout, testified under oath to Congress that "Snapchat makes it intentionally difficult for strangers to find people that they don't know. We do not have open profiles; we do not have browsable pictures. We don't have the ability to understand who people's friends are and where they go to school." In fact, at all times relevant Snap utilized its "Quick Add" product, which literally operates by recommending complete strangers to one another, and including adults to children and vice versa. This is one of the most dangerous products, according to Meta research, when it comes to grooming and exploitation of children. Snap also provided written testimony, via Ms. Stout, that Snap makes "no effort – and have no plans – to market to children ..." This was also not accurate, as discussed in more detail throughout this Complaint.
- d. TikTok's Vice President and Head of Public Policy for the Americas, Michael Beckerman, testified under oath to Congress that TikTok creates age-appropriate experiences, and does not allow people under 16 to send direct messages on its platform. In fact, TikTok takes no reasonable precautions when it comes to children under 16, first and foremost, because it does not actually verify use age or identity. And several children have died after being exposed to various TikTok Challenges as direct result of TikTok's algorithm recommending and/or promoting such content. TikTok also knows of underage users and allows them to post videos, then fails to take those videos down promptly upon discovery that the user is underage. On information and belief, TikTok managers and designers participated in the Habit Summit as well.

153. During the relevant time period, Meta, Snap, and TikTok stated in public comments that their products are not addictive and were not designed to be addictive. Defendants knew or should have known that those statements were untrue.

154. During the relevant time period, Meta, Snap, and TikTok advertised via commercials and/or third parties that their products were fun and safe to use, and that Defendants employed their technologies to ensure safe and age-appropriate experiences. Defendants knew or should have known that those statements were untrue.

155. Meta, Snap, and TikTok did not warn users or their parents of the addictive and mentally harmful effects that the use of their products was known to cause amongst minor users. On the contrary, Defendants have gone to significant lengths to conceal and/or avoid disclosure as to the true nature of their products.

J. Plaintiff Expressly Disclaims Any and All Claims Seeking to Hold Defendants Liable as the Publisher or Speaker of Any Content Provided, Posted, or Created by Third Parties

156. Plaintiff seeks to hold Defendants accountable for their own alleged acts and omissions. Plaintiff's claims arise from Defendants' status as designers and marketers of dangerously defective social media product, as well as Defendants' own statements and actions, not as the speaker or publisher of third-party content.

157. Meta, Snap, and TikTok designed and have progressively modified their products to promote problematic and excessive use that they know is indicative of addictive and self-destructive use. Defendants' product features are designed to be and are addictive and harmful in themselves, without regard to any content that may exist on Defendants' platforms. For example, Defendants "like" and "follow" features are content neutral and have nothing to do with the content or material a user sees. Defendants also have developed and modified product features like the continuous loop feed and push notifications, to incentivize users to stay on the product as long as possible and to convince users to log back on. Defendants even calculate the most effective time to send such notifications, which in the case of young users often means in the middle of the night and/or during school hours. Essentially, the times they are least likely to have access to Defendants' social media products, which also—as Defendants know—are the times that their health and well-being

necessitate them not being on Defendants' social media product. Meta, Snap, and TikTok's products are designed to and do addict users on a content neutral basis.

158. The structure of these social media products and the technologies Defendants' design and utilize are, standing alone, harmful to users and irrespective of content. For example, a primary purpose of Defendants' algorithm designs is to determine individual user preferences first so that Defendants can then influence user behavior and choices second—which is particularly dangerous in the case of teens. On a content neutral basis, the manipulation and control these Defendants knowingly wield over their users daily is profoundly dangerous.

159. Defendants have designed other product features for the purpose of encouraging and assisting children in evasion of parental oversight, protection, and consent, which features are wholly unnecessary to the operation of Defendants' products.

160. Defendants affirmatively promote, encourage, and/or otherwise contribute to the development of harmful content. In an October 2021 Senate Hearing it was revealed that Meta documents provided by a whistleblower demonstrate that Defendants promote, encourage, and/or otherwise contribute to the development of harmful content. The Senate hearing revealed that,

- a. Defendants approve of ads that contain harmful content, for example, “designed to encourage and promote anorexia” and encourage children to abuse prescription or illegal drugs, which ads Defendants then target specifically at children in exchange for payment.
- b. Defendants utilize private information of their minor users to “precisely target [them] with content and recommendations, assessing what will provoke a reaction,” including encouragement of “destructive and dangerous behaviors.” Defendants specifically select and push this harmful content, for which they are paid, to increase user engagement. “That’s how [defendants] can push teens into darker and darker places.” (Senator Blumenthal, October

5, 2022).

- c. Defendants “know[] that [their] amplification algorithms, things like engagement based ranking ... can lead children from very innocuous topics like healthy recipes ... all the way from just something innocent like healthy recipes to anorexia promoting content over a very short period of time.” Defendants have knowledge that their products and the content they are encouraging and helping to create is harmful to young users and choose “profits over safety.”

161. Defendants’ technologies identify minor users by age and gender and, on information and belief, race, ethnicity, sexual orientation, and economic status and direct specific content to specific users based upon these factors, and numerous, undisclosed others. User data obtained through Defendants’ algorithms, particularly age and gender, affirmatively directs predatory adults to vulnerable minor users. In this way, the Defendant’s algorithms promote responses from predatory adult users that violate state and federal law. Because Defendants’ social media products themselves generate the options for selecting a user based on predatory criteria, they materially contributed to the unlawfulness of the posted content described herein.

162. Defendants are responsible for these harms. These harms are caused by Defendants’ designs and design-decisions, and not any single incident of third-party content.

163. While it may be a third party that creates a particular piece of harmful content, the teens and children harmed by Defendants’ social media products are not being harmed by a single piece of harmful content. They are being harmed by Defendants’ products, programming, and decisions to expose teens and children to harmful product features and to show teens and children a constant barrage of harmful content to obtain more advertising revenue and increase engagement.

164. L.S. and children like her do not open social media accounts in the hopes of become addicted. Nonetheless, such children *do* become addicted, leading them to engage in

foreseeable addict behaviors, such as lying to their parents, hiding their use of Defendants' products, losing control, becoming irritable and depressed when access is denied, and hyper-vigilance to avoid detection. These and other behaviors can and do result in serious harm to Defendants' minor users and resulted in serious harm to Plaintiff.

165. L.S. and children like her do not start using social media in the hopes of being exposed to product features that cause harm to them. Yet the use of Facebook, Instagram, Snapchat, and TikTok involves harmful forms of social comparison and inevitably pushes such children towards harmful "rabbit holes," causing anxiety, depression, eating disorders, and self-harm—harms at least some of these Defendants acknowledge in internal documents. Defendants' products caused these harms to L.S.

166. The harms at issue in this case do not relate to or arise from third party content, but rather, Defendants' product features and designs, including algorithms and other technology that (a) addicts minor users to their products; (b) amplify and promote harmful social comparison through product features; (c) affirmatively select and promote harmful content to vulnerable users based on its individualized demographic data and social media activity; and (d) put minor users in contact with dangerous adult predators and otherwise expose to them to seemingly unstoppable unwanted interactions from persons not on their friend list or equivalent. Indeed, the foregoing are merely examples of the kinds of harms at issue in this case.

167. None of Plaintiff's claims rely on treating Defendants as the publisher or speaker of any third party's words or content. Plaintiff's claims seek to hold these Defendants accountable for their own allegedly wrongful acts and omissions, not for the speech of others or for any good faith attempts on the part of these Defendants to restrict access objectionable content.

168. None of Plaintiff's Claims for Relief set forth herein treat Defendants as a speaker or publisher of content posted by third parties. Rather, Plaintiff seeks to hold Defendants liable for their own speech and their own silence in failing to warn of foreseeable

dangers arising from anticipate use of their products. Defendants could manifestly fulfill their legal duty to design a reasonably safe social product and furnish adequate warnings of foreseeable dangers arising out of the use of their products without altering, deleting, or modifying the content of a single third- party post or communication. Some examples include,

- a. Not using their addictive and inherently dangerous algorithm and similar technologies in connection with any account held by a user under the age of 18.
- b. Not permitting any targeted advertisements to any user under the age of 18.
- c. Prioritizing internally their removal of harmful content (content their systems are promoting and amplifying) over the risk of losing some user engagement.
- d. Requiring identification upon opening of a new account, requiring parental consent for users under the age of 18 (which Snap and TikTok currently claim to do but do not actually enforce in any way), and restricting users under the age of 18 to a single account. This is something teens have even asked these companies to do *for their safety*.
- e. Requiring verification of email and phone number when a user opens a new account. Not requiring verification allows underage users to access these social media products and does not stop bad actors.
- f. Immediate suspension of accounts where Defendants have reason to know that the user is under the age of 13, including when the user declares that they are under the age of 13 in their bio or comments or chats and/or messages with any third party and where Defendants can determine an “estimated” age of under 13 based on other information they collect and/or have in their possession (including, for example, posted videos that clearly feature children under 13); and not allowing the account to resume until the user provides proof of age and identity and/or parental consent.

- g. Suspension of accounts and, in some cases, user bans, where Defendants have reason to know that the user is over the age of 18, but where they are providing information to suggest that they are minors and/or are representing themselves as minors to other users; and not allowing the account to resume until the user provides proof of age and identity.
- h. Removing social comparison features and/or hiding those features to reduce their harmful impact on teen users.
- i. Instituting advertising safeguards to ensure that Defendants are not profiting directly from or otherwise pushing or endorsing harmful advertising content and removing advertising targeting tools so that advertisers cannot harm vulnerable user groups by aiming harmful advertisements at them.
- j. Requiring that all teen user accounts be set to private and not allowing any user under the age of 18 to change user settings to public.
- k. Removing all friend and group and content recommendation systems that involve teen users in any way (so, not recommending to teen users, but also, not recommending teen users to adults) and not permitting direct messaging or other forms of direct communication with any user under the age of 18 not already on the other user's friend list.

169. These are just some examples, all of which could be accomplished easily and/or at commercially reasonable cost. Defendants know that they can make these change and, in many cases, have discussed these or similar changes internally. However, they have not instituted these types of safety features because they know that doing so would impact their astronomical revenue.

V. PLAINTIFF SPECIFIC ALLEGATIONS

K. Plaintiff L.S.'s Mental and Physical Harms Were Proximately Caused by Defendants' Inherently Dangerous Social Media Products

170. L.S. currently is 16 years old.

171. She was a smart and artistic child, who always enjoyed drawing and spending time with family. She liked to perform in school plays and had a quiet but happy demeanor.

172. When L.S. was 10 she opened her first Facebook and Instagram accounts. She was excited as, by then, most of her friends already had Facebook and Instagram accounts.

173. S.R. did not know much about social media at the time, just that it was a way for people to keep up with other people and a popular communication product among kids. S.R. had heard about the Facebook and Instagram products, both through Meta's marketing and word of mouth. She understood based on this that Facebook and Instagram were as safe as it gets, kids used these products regularly, and that these products were not addictive. Based on Meta's representations, and the fact that S.R. saw other children using this product – including several of L.S.'s friends – S.R. allowed it in her home. S.R. would not have allowed it had Meta and its leadership told the truth about their social media products.

174. S.R. did not know and could not have known about Meta's addictive design, encouragement of FINSTA and/or SPAM accounts (secret secondary accounts created by kids), social comparison harms caused by Instagram products and recommendation technologies, and recommendation systems and profile/messaging settings that are inherently harmful when used the way Meta uses them in connection with accounts belonging to minors, like L.S.

175. Almost immediately after L.S. began using Meta's social media products, things changed. L.S.'s use of Facebook and Instagram developed into a dependency on the Facebook and Instagram products and coincided with a steady decline in her mental health, and alarming anxiety, depression, and self-harm behaviors.

176. S.R. had no reason at that time to think that Meta was knowingly making and

distributing harmful products to anyone, much less to kids. She had no reason to suspect Meta's social media products as the cause of her daughter's mental harms, and Meta continued going to great lengths to conceal the truth in this regard.

177. L.S. wanted to use Facebook and Instagram to chat with friends, see what people were doing via Meta's feed features, and look up fun stuff and kid appropriate material via Meta's Explore features. Almost immediately, however, Meta's inherently dangerous recommendation technologies (also referred to as algorithms) began escalating by identifying and directing L.S. to harmful social comparison and self-harm content and otherwise exposing her to exploitation and abuse by complete strangers. Meta profited greatly from the harms it caused.

178. Through Meta's public profile features, L.S.'s profile was made viewable and available to complete strangers (including adults) also using Meta's products. The public profile feature does not serve any communication or utility purpose, but rather, it is a product feature that increases Meta's engagement exponentially and including by connecting users to one another. It is also inherently dangerous in the case of minors, as it exposes children and teens to predators – which fact Meta's has studied and concluded on more than one occasion.

179. Meta's inherently dangerous recommendation systems also immediately began recommending L.S. to adult Meta users, encouraging those complete strangers to reach out and try to connect with L.S. (and vice versa). Meta refers to this as its "People You May Know" ("PYMK") feature. Meta studied this feature as well and concluded that it has historically contributed to much of the adult/minor grooming that occurs on Meta's Facebook platform – yet, incredibly, Meta continued utilizing this product regardless, and at least in part, because it also knows that connecting more users (including the connecting of adults to children) increases its retention rate and helps it lock-in new users to these Meta products.

180. Meta likewise provided L.S. and other users with access to its Direct Messaging products, which enable adult users and others to message minors, like L.S.,

without restriction or parental oversight, even where users are not already connected. This is a third product that has been studied by Meta, found to be harmful and/or defective in the case of minor users, and which Meta has chosen to maintain anyway and in the interest of its engagement and growth objectives.

181. Meta knew or should have known that L.S. was under 13, but regardless, these products features are inherently defective and dangerous even in the case of minors that are 13 or older.

182. Meta has actual knowledge that these product features are harmful in the case of minors, *i.e.* its recommendation systems (“People You May Know”), public profile settings, and unrestricted direct messaging products when used by complete strangers to connect with children. Meta employees have studied and recommended product changes to these features, to protect children, which changes Meta could make in a matter of hours not days.

183. As a result of Meta’s inherently dangerous and defective product features, on information and belief, 10-year-old L.S. was harassed and bullied by strangers who were able to access her via Meta’s direct messaging feature and L.S. was repeatedly contacted by adult male Meta users looking to exploit and sexually abuse her. L.S. did not want to talk to these strangers but was also only 10.

184. Meta’s inherently dangerous recommendation systems also began connecting L.S. with user groups and content that encouraged her to self-harm, and otherwise caused harmful social comparisons. For example, while L.S. was looking for fun, kid-themed content, Meta began identifying and pushing to her Explore pages health and beauty content, including overly thin models and unrealistic body images, as well as much darker content, including content focused on minors and self-harm, depression, even suicidal ideation.

185. This is not content L.S. searched for or even wanted, but rather, content Meta’s recommendation technologies decided to show L.S. to increase her engagement with Meta’s social media products at any cost. Meta’s makes programming decisions for its

recommendation technologies and has the choice to program its technologies for any number of outcomes, including user safety and the protection of minor users. This is analogous to a lever, which Meta alone controls. Meta knows that programming for user safety means less money for Meta and, on that basis, made the calculated business decision to set the lever for engagement.

186. L.S. also began engaging in negative social comparison as a direct result of certain Meta product features, such as Meta’s “like” button – present on both its Facebook and Instagram products. L.S. became fearful that her posts would not get enough likes and, as time went on, began to feel worse and worse about herself. She worried about “likes” every time she posted and posted more in the hopes of getting more likes.

187. This is another product for which Meta employees have presented leadership with studies, data, and recommendations, warning that the product is addictive and harmful to a percentage of Meta’s young, female users and can result in social comparison harms, anxiety, and depression. Meta employees studied this feature (referred to as “Project Daisy”) and urged the company to hide a user’s likes as a permanent setting (referred to as “Pure Daisy”), based on findings that doing so would have a positive impact on a statistically significant percentage of Meta’s teen users. Meta leadership refused to launch Pure Daisy, the cost of which would have been nominal, based on related findings that these protective measures might have a small negative impact on advertising revenue and would be unpopular among social media influencers. Meta leadership chose profit over consumer safety and did so unapologetically.

188. Meta also sent L.S. notifications, created, and generated by Meta itself, and designed to increase user addiction and persuade L.S. to log back on to Meta’s social media products each time she tried to put them down – including at night, when she should have been asleep. L.S. received and responded to such notifications, which increased her level of dependency on these products through targeted delivery of harmful content.

189. Shortly after getting her first Meta social media accounts, L.S. became quieter

and withdrawn. For the first time in her life, she exhibited symptoms of anxiety and depression. She was not as bubbly as she had been just weeks prior and began acting out – particularly around issues that involved social media. Then she began engaging in the types of self-harm Meta was identifying and sending to her through its Facebook and Instagram products.

190. Shortly after her use of Meta’s products began, L.S. did not want to do anything other than use of those products. Common things like completing her chores became a struggle, with L.S. resenting her mother for making her take a break from Facebook and Instagram.

191. On information and belief, L.S. also began staying up late and sneaking onto her social media accounts after her mother had gone to bed, resulting in severe sleep deprivation, which led to more anxiety and depression, as well as exhaustion and related stresses. Plaintiff had no way of knowing that these were harms caused by Facebook and Instagram, while Meta did – in fact, Meta had studied and specifically identified these harms, and their disproportionate impact on both children and teens and, more specifically, female children and teens.

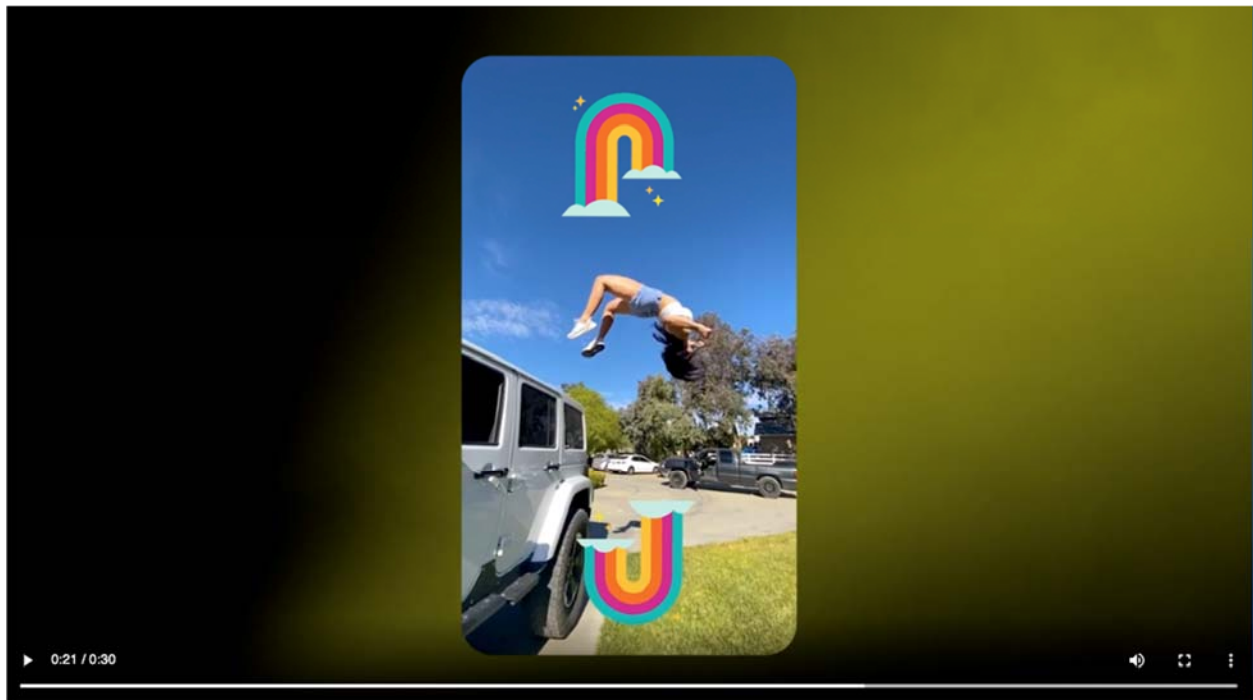
192. Within weeks after L.S.’s known use of Meta’s social media products started she began engaging in self-injurious behavior. S.R. got her into counseling right away, though neither S.R., the counselor, or even L.S. herself had any way to determine or know the source of the problem – S.R. just knew that her daughter was suddenly acting out and experiencing anxiety and depression and wanted to get her the help she needed.

193. On information and belief, when L.S. was 12, she opened her first Snapchat account. She opened this account without her mother’s knowledge or consent and did not tell her that she had opened the account at all.

194. Snap has designed its product to be maximally addicting, especially to teens and children. Snap also markets directly to teens and children, like L.S. For example, one Snapchat commercial titled “Spotlight on Snapchat” reads,

This is Spotlight
Now on Snapchat
Submit your best video Snaps
Top creators can earn
A share of more than
1 Million Dollars
Every
Day
Or lean back
Watch
And pick your favorites
Happy Snapping!

And features up tempo music with several photos of people having fun and being goofy.



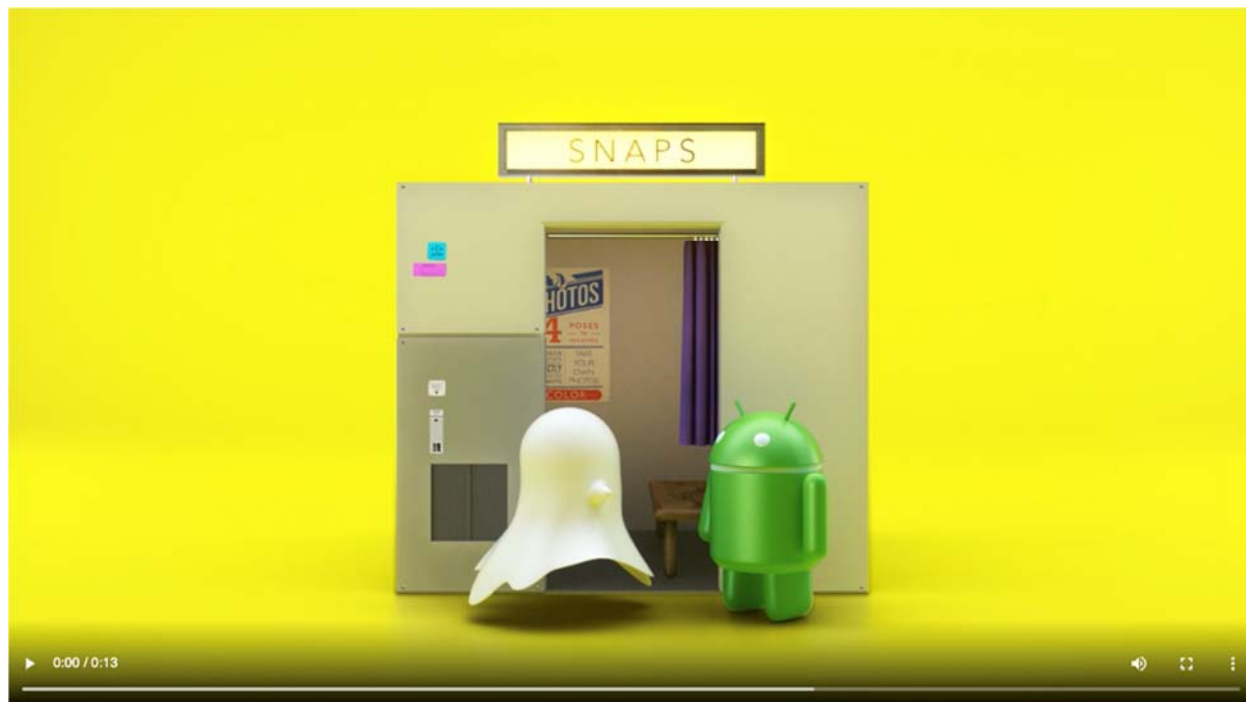
A second commercial is titled “Real Friends” and reads, “we talked to thousands of people around the world about their Real friends, then features Snap users talking about how their friends developed on Snap, followed by avatars (cartoons) of each,



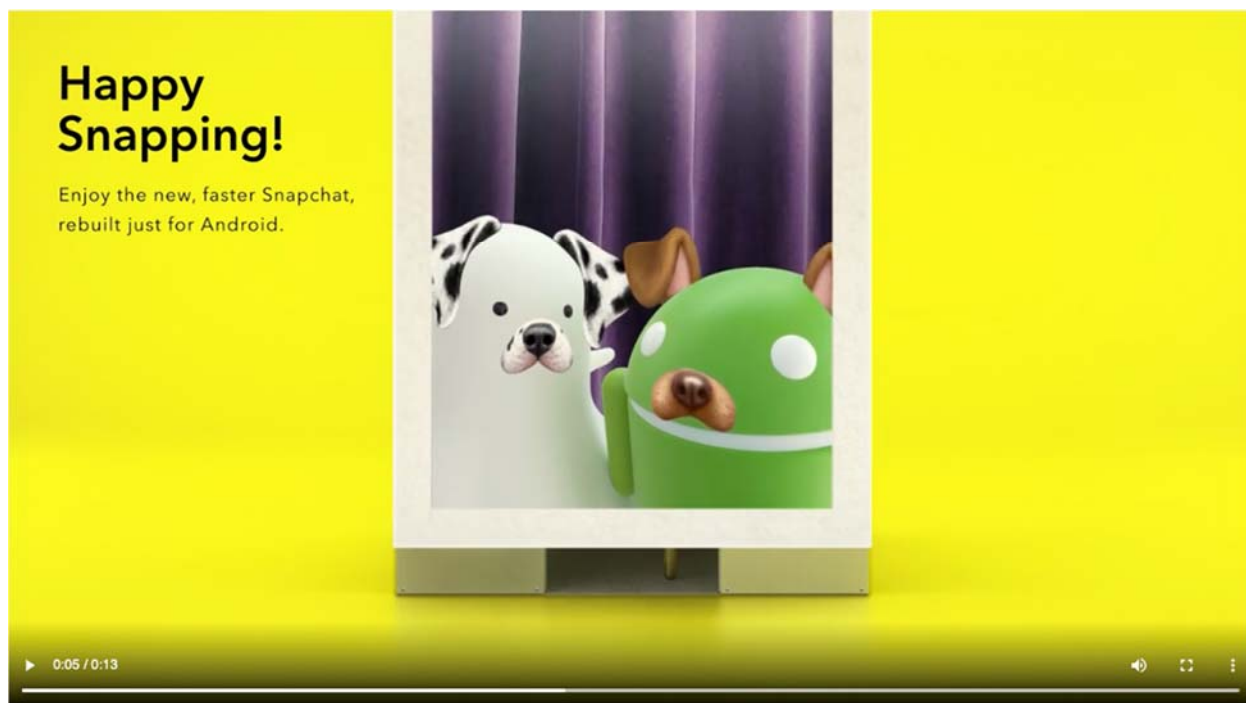
A third Snapchat commercial highlights Snap’s fun filters,

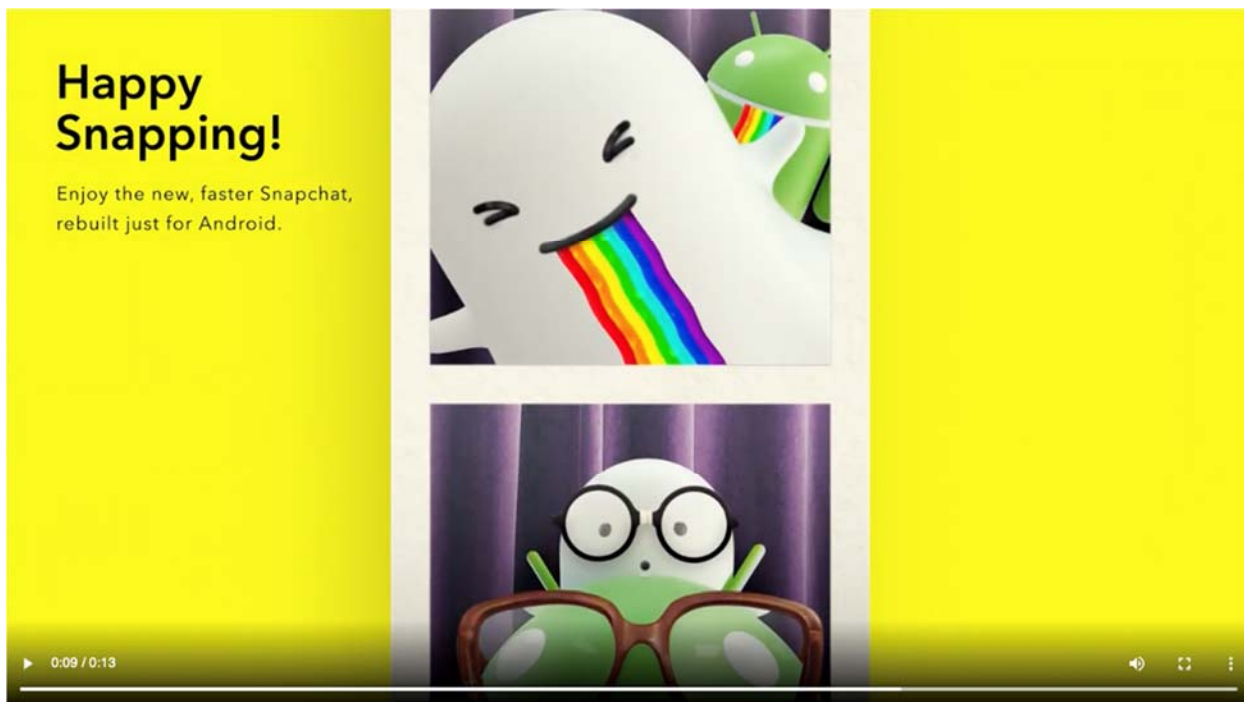


A fourth starts with two toys (a ghost and robot) entering a “Snaps” booth,



It reads “Happy Snapping! Enjoy the new, faster Snapchat, rebuilt just for Android” and then features various goofy photo booth pictures,





Snapchat cannot claim that its advertisements are not aimed at children and teens.

195. It is understood among kids that none of these Defendants will close your accounts for being under 13. You just have to say you are 13 when opening an account and can then tell people your real age. In fact, this is something many kids still do. It is also understood among children that none of these Defendants object to kids using more than one account. On the contrary, Meta actively engages in campaigns meant to ensure that every teen knows they can open multiple accounts. Multiple accounts make it easier to hide more personal content and the existence of secondary accounts from parents and family—often referred to as a SPAM account or, in Instagram’s case, a FINSTA (short for “fake Instagram”).

196. Defendants designed these products to frustrate and prevent parents like S.R. from exercising their rights and duties as parents to monitor and limit their child’s use of their social media products. For example, only, Snap’s Snapchat social media product is best known for its patented ephemeral messaging product, which does not monitor or delete selected content, but instead, deletes all Snap’s once viewed and with very few exceptions.

Snap also has a “My Eyes Only” product feature which allows users to hide content in the equivalent of a virtual vault/incinerator – only the user can obtain access (Snap claims that it does not even have access) and if someone tries to access with the wrong passcode the contents self-destruct. This is an inherently and incredibly dangerous product feature, which serves no purpose other than concealment and spoilage of documents. The only reason children “need” such a feature is because guardians possess parental and property rights in their electronic devices. This product is designed specifically to evade parental control and has resulted in considerable harm to parents as a result.

197. Snap also directed its harmful recommendation technologies at L.S., including its “Quick Add” feature, which functions roughly the same as Meta’s user recommendation product, PYMK. Though this feature, and content-recommendation technologies, Snap connected various Snapchat users to L.S., whom L.S. did not know in real life and would not have met but for Snap’s specific recommendations and affirmative product features. These users also ultimately bullied and abused L.S., which harms would not have happened but for the Snapchat product features described above.

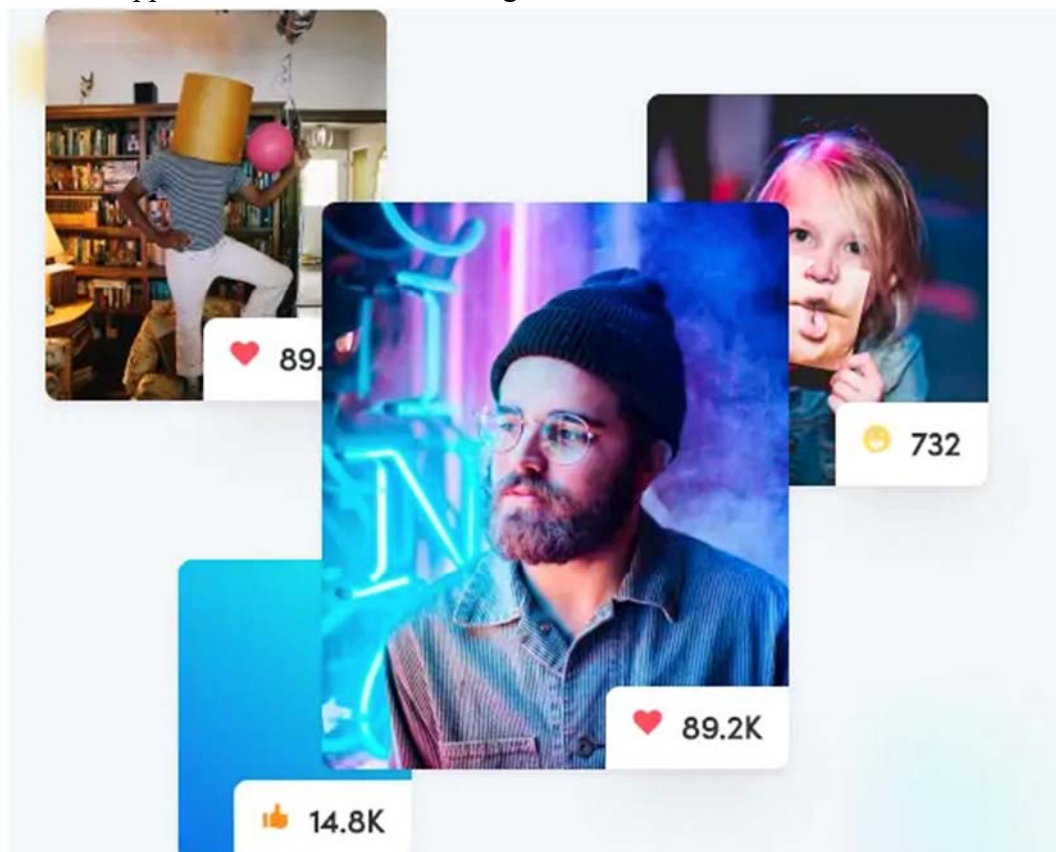
198. Snap also was particularly addictive, due to its unique product features such as Streaks, Trophies (now Charms), and Scores. These are inherently addictive and dangerous product features, meant to hook teens at any cost. In fact, Snapchat’s Snap Streaks product feature has been referred to as one of the most addictive across all social media platforms, particularly when it comes to teens. Snap has been urged to remove that product feature for years, for the health and safety of children, and has refused.²⁴

199. At some point after L.S. began using Snapchat, she opened a TikTok social media account. S.R. does not know the exact date when L.S. opened her first TikTok account, but at some point, she realized that L.S. opened a TikTok account.

²⁴ See, e.g., <https://www.bbc.com/news/technology-47623626> (Snapchat under scrutiny from MPs over “addictive” streaks), March 19, 2019.

200. S.R. understood based on TikTok's marketing and appearance that the TikTok product was safe for kids, and that its primary purpose was the cute dance videos. Kids were taking and posting those to circulate with friends, and even parents with their small children.

201. TikTok was known for being a fun, silly, and safe application used to post and watch silly videos of people dancing and having fun. This was how TikTok advertised and marketed its product, particularly during the pandemic, when it became the most popular social media application in the world among kids.²⁵



²⁵ See, e.g., <https://tinuiti.com/blog/marketing-news-covid-19/tiktok-covid-19/>; <https://www.grammy.com/news/drakes-toosie-slide-doja-cats-say-so-what-tiktok-dance-have-you-been-practicing-during>; <https://www.vox.com/the-goods/2020/5/12/21254785/this-week-in-tiktok-quarantine-famous-pandemic-decorating>; <https://extremereach.com/blog/tiktok-finds-increased-success-during-quarantine/>; <https://edition.cnn.com/2020/04/19/us/tiktok-coronavirus-quarantine-dance-trnd/index.html>

(CNN) — Families all over the world have been stuck inside together for weeks. Have they completely torn each other apart by now? Are the bonds of familial love ripping at the seams and giving way to household anarchy?



Related Article: Behind that teenage TikTok star, there's probably a very confused parent

On TikTok, [the global video sharing platform](#), the answer is (thankfully) no.

In fact, the app's feed is filled with moms and dads, sisters and brothers, aunties and cousins and even family dogs all joining together to make silly, creative, often downright wholesome quarantine content.

The result is proof that families who stay together can create together, even when it seems like everything else in life is far more difficult than it should be.

202. TikTok created and distributed commercials meant to appeal to teens and pre-teens, and it was rewarded handsomely for its efforts – as its teen and pre-teen user base shot up in 2020.

203. TikTok also represented that its product was safe and included statements in its Community Guidelines to the effect that harmful content was not allowed and would not be shown to children on its platform.

204. On information and belief, TikTok also and always had the technology necessary to enforce its Community Guidelines and ensure that its product was the safe and fun product it advertised it as being – but did not, because it knew that enforcing its safety related rules would result in lower user engagement.

205. On information and belief, when L.S. began using TikTok, the TikTok product targeted L.S. based on her age and gender and began sending her harmful disordered eating and self-harm content, which content was sent to L.S. without her mother's knowledge or consent.

206. This is not content L.S. was searching for, but content that TikTok selected

and promoted as a means of increasing L.S.'s (already harmful) engagement with its social media product. TikTok could have made its product safer for children like L.S. by simply not targeting them with its algorithm.

207. After L.S. opened a TikTok account, her dependency on Defendants' social media products increased to the point where, on information and belief, L.S. has spent as many as 20 hours in a single day using those products.

208. Defendants' products have interfered with and prevented R.S. from exercising parental authority and control, to the point where R.S. cannot even try to restrict L.S.'s use of their products for fear that she will self-harm, run away, or worse. The addiction Defendants' products have caused among a substantial percentage of their teen and child users is extreme to the point of causing death by suicide when those products are removed and because of their removal – which outcome is shocking and horrific. Nonetheless, it is an outcome Defendants each have or should have foreseen as a potential harm caused by the inherently addictive and harmful nature of their products. This is engineered addiction. Defendants have spent billions to make their products maximally addicting, have studied the brains and behavioral patterns of teens and children, and then have taken aim at teens and children in a race to lock-in as many of them as possible – all for Defendants' economic gain.

209. Defendants have operated in this manner under the belief that they are immune from liability, no matter how harmful and outrageous their conduct may be. They are not immune from the consequences of designing and developing harmful products, marketing to children, lying to the world about how their products work and/or product safety, distributing to tens of millions of children knowingly and without parental consent, and/or refusing to make simple product changes that would reduce or prevent these harms.

210. But for Meta and TikTok's misrepresentations and material omissions relating to the safety of their social media products and their use of technology to protect young users, L.S. would not have been exposed to Facebook, Instagram, and TikTok's defective, addictive, and/or inherently harmful features and design.

211. But for Snap's failure to conduct reasonable verification of age, identity, and/or parental consent, L.S. would not have been exposed to Snapchat's inherently dangerous and defective features and design.

212. But for Defendants' "likes" and "follow" features and other harmful social comparison product features, L.S. would not have experienced the anxiety and depression that stem from the number of likes collected and Defendants' amplification of social comparison content.

213. But for Defendants' endless feed (in the case of Meta) and content features (in the case of all Defendants), along with other product design features, Defendants have engineered to product dependency by its users and, especially, its youngest users, L.S. would not have experienced the clinical addiction that these features were designed to promote.

214. But for Defendants' recommendation and content algorithms, and profile settings and direct messaging features, L.S. would not have been connected and exposed to adult users and other users who bullied, abused, and/or exploited her.

215. At all times relevant, Defendants knew that some of their users would become addicted to their product. Defendants also knew that children and teenagers would be particularly susceptible, and Defendants knew or should have known what an addiction like this would do to those children and teenagers and their families. But Defendants didn't care. For years, for example, Defendant Meta has been conducting studies meant to help increase usage and dependency by children like L.S. L.S. was dependent on Defendants' products and could not stop using them, even when those products were directing increasing amounts of harmful content and amplifying that harmful content to minor, L.S. L.S. was repeatedly bombarded with and exposed to content identified and recommended to her by Defendants, was locked-in to Defendants' products to the point where she could no longer sleep or function outside of attending classes and keeping up her grades, and experiences extreme anxiety, depression, desperation, and loneliness when she is not using Defendants' products.

216. The more L.S. accessed and used Defendants' products, the worse her mental

and physical health became.

217. L.S. is still seeing a regular counselor, which sessions became more difficult during COVID and had to be scheduled remotely. S.R. is currently looking for additional and stepped-up mental health care for her daughter, as she needs more help than just weekly counseling sessions.

218. This is one of the greatest harms these defendants have caused to the American public and medical and insurance systems. Millions of families and treatment providers have been trying to help children and teens through unknown traumas and injuries and have been unable to provide the treatment and help needed because of these defendants. Their refusal and failure to disclose what they knew and when they knew it regarding the harms their products are causing has kept families and providers in the dark and without critical information needed to help these children and teens.

219. Defendants consider children like L.S. to be their most valuable demographic and, for that reason, are willing to do whatever they must to engage and addict them.

220. Plaintiff's life has become a day-to-day push to find out how she can help L.S. L.S. struggles every single day with her dependency on Defendants' products. She cannot sleep without them, cannot function when access is restricted or removed, and is often anxious, upset, and withdrawn. She engages in harmful social comparisons, to the point where her self-esteem is almost non-existent, and often resorts to self-harm out of frustration, loneliness, and anxiety.

221. The degree to which these harms will impact L.S.'s physical health long term is still unknown, however, given her young age, there is no question that they will have long term impact on L.S.'s mental health. L.S. will need counseling for many years to come, and must now battle anxiety, depression, and addiction to Defendants' harmful social media products.

222. S.R. lives every day with the fear of losing her child, and these harms were preventable had Defendants simply not ignored the health and safety of their users,

particularly children using their products, in its effort to rake in greater profits.

VI. PLAINTIFF'S CLAIMS
COUNT I - STRICT PRODUCT LIABILITY (Design Defect)

223. Plaintiff realleges each and every allegation contained in the preceding paragraphs as if fully stated herein.

224. One who sells any product in a defective condition unreasonably dangerous to the user is subject to liability for physical harm thereby caused to the user if (a) the seller is engaged in the business of selling such a product, and (b) it is expected to and does reach the user or consumer without substantial change in the condition which it was sold.

225. Defendants' products are defective because the foreseeable risks of harm posed by the product's design could have been reduced or avoided by the adoption of a reasonable alternative design by Defendants and the omission of the alternative design renders the product not reasonably safe. These defective conditions rendered these products unreasonably dangerous to persons or property and existed at the time the product left Defendants' control, reached the user or consumer without substantial change in the condition and its defective condition was a cause of Plaintiff's injuries.

226. Defendants designed, manufactured, marketed, and sold social media products that were unreasonably dangerous because they were designed to be addictive to the minor users to whom Defendants actively marketed and because the foreseeable use of Defendants' products causes mental and physical harm to minor users.

227. Defendants' products were unreasonably dangerous because they contained numerous design characteristics that are not necessary for the utility provided to the user but are unreasonably dangerous and implemented by Defendants solely to increase the profits they derived from each additional user and the length of time they could keep each user dependent on their product.

L. Inadequate Safeguards From Harmful and Exploitative Content

228. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

229. As designed, Facebook, Instagram, Snapchat, and TikTok algorithms and other product features are not reasonably safe because they affirmatively direct minor users to harmful and exploitative content while failing to deploy feasible safeguards to protect vulnerable teens from such harmful exposures. It is feasible to design an algorithm and technologies that substantially distinguish between harmful and innocuous content and protect minor users from being exposed to harmful content without altering, modifying, or deleting any third-party content posted on Defendants' social media products. The cost of designing these products to incorporate this safeguard would be negligible while benefit would be high in terms of reducing the quantum of mental and physical harm sustained by minor users and their families.

230. As designed, Facebook, Instagram, Snapchat, and TikTok algorithms and other product features are not reasonably safe because they affirmatively direct and recommend minor users to harmful groups and other users, while failing to deploy feasible safeguards to protect vulnerable teens from such harmful exposures. It is feasible to design algorithms and technologies that do not make harmful connection recommendations to minor users, or any connection recommendations at all; it is feasible to design algorithms and technologies that do not direct harmful groups to minor users, or any group recommendations at all; and it is feasible to restrict access to minor users by strangers and adult users via direct messaging, to restrict and limit such access to users already on a minor user's "friend" list, or to prevent such access altogether. Defendants know that these product features cause a significant number of harms to their minor users, such as sexual exploitation, bullying, and even self-harm and suicide.

231. Defendants also engage in conduct, outside of the algorithms and related technologies themselves, that is designed to promote harmful and exploitative content as a means of increasing their revenue from advertisements. This includes but is not limited to

efforts to encourage advertisers to design ads that appeal to minors, including teens like L.S.; and product design features intended to attract and engage minor users to these virtual spaces where harmful ad content is then pushed to those users in a manner intended to increase user engagement, thereby increasing revenue to Defendants at the direct cost of user wellbeing.

232. Reasonable users (and their parents) would not expect that Defendants' products would knowingly expose them to such harmful content and/or that Defendants' products would direct them to harmful content at all, much less in the manipulative and coercive manner that they do. Defendants have and continue to knowingly use their algorithms and other technologies on users in a manner designed to affirmatively change their behavior, which methods are particularly effective on (and harmful to) Defendants' youngest users.

M. Failure to Verify Minor Users' Age and Identity

233. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

234. As designed, Defendants' products are not reasonably safe because they do not provide for adequate age verification by requiring users to document and verify their age and identity.

235. Adults frequently set up user accounts on Defendants' social media products disguising their identity and/or posing as minors to groom unsuspecting minors to exchange sexually explicit content and images, which frequently progresses to sexual exploitation and trafficking, and commercial sex acts.

236. Minor users of social media and their parents do not reasonably expect that prurient adults set up fraudulent accounts on Defendants' social media products and pose as minors for malign purposes.

237. Likewise, minor users of Defendants' products often open multiple accounts, such that Defendants know or have reason to know that the user is underage and/or does not have parental permission to use their product. Defendants already have the information and

means they need to ascertain with reasonable certainty their users' actual age. Defendants utilize these tools to investigate, assess, and report on percentages and totals of underage users for internal assessment purposes. They then choose to simply do nothing about that information as it relates to the specific, underaged users themselves.

238. Reasonably accurate age and identity verification is not only feasible but widely deployed by online retailers and internet service providers. Defendants not only can estimate the age of their users, but they do.

239. The cost of incorporating age and identity verification into Defendants' products would be negligible, whereas the benefit of age and identity verification would be a substantial reduction in severe mental health harms, sexual exploitation, and abuse among minor users of Defendants' products.

N. Inadequate Parental Control and Monitoring

240. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

241. Defendants have intentionally designed products to frustrate the exercise of parental responsibility by their minor users' parents. Parents have a right to monitor their children's social media activity to protect them from harm. Defendants have designed products that make it difficult, if not impossible, for parents to exercise parental responsibility.

242. It is feasible to design a social media product that requires parental consent for users under the age of 18 and prohibits users under the age of 13.

243. Defendants' products are also defective for lack of parental controls, permission, and monitoring capability available on many other devices and applications.

244. Defendants' products are designed with specific product features intended to prevent and/or interfere with parents' reasonable and lawful exercise of parental control, permission, and monitoring capability available on many other devices and applications.

O. Intentional Direction of Minor Users to Harmful and Exploitative Content

245. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

246. Default “recommendations” communicated to new teenage users, including L.S., purposefully steered her toward content Defendants knew to be harmful to children of their age and gender.

247. Ad content pushed to new minor users, including L.S., because of their age and vulnerabilities, purposefully steer those users toward content Defendants know to be harmful to children of their age and gender. This defect is only worsened by the algorithmic discrimination that exists in Defendants’ products and operated to the detriment of L.S.

P. Inadequate Protection of Minors from Sexual Exploitation and Abuse

248. Facebook, Instagram, and TikTok are defectively designed.

249. Defendants’ products are not reasonably safe because they do not protect minor users from sexually explicit content and images, report sex offenders to law enforcement, or allow users’ parents to readily report abusive users to law enforcement.

250. Parents do not expect their children will use Defendants’ products to exchange sexually explicit content and images and minor users do not expect that prurient adults pose as minors for malign purposes or that exchange of such content will be deleterious to their personal safety and emotional health.

251. Minor users of Defendants’ products lack the cognitive ability and life experience to identify online grooming behaviors by prurient adults and the psychosocial maturity to decline invitations to exchange salacious material.

252. Defendants’ products are unreasonably dangerous and defective as designed because they allow minor children to use “public” profiles, in many cases default “public” profiles, that can be mass-messed by anonymous and semi-anonymous adult users for the purposes of sexual exploitation and grooming, including the sending of encrypted, disappearing messages and cash rewards through Defendants’ integrated design features.

Q. Design of Addictive Social Media Products

253. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

254. As designed, Defendants' social media products are addictive to minor users as follows: When minors use design features such as "likes" or "streaks" it causes their brains to release dopamine, which creates short term euphoria. However, as soon as dopamine is released, minor users' brains adapt by reducing or "downregulating" the number of dopamine receptors that are stimulated and their euphoria is countered by dejection. In normal stimulatory environments, this dejection abates, and neutrality is restored. However, Defendants' algorithms are designed to exploit users' natural tendency to counteract dejection by going back to the source of pleasure for another dose of euphoria. As this pattern continues over a period of months and the neurological baseline to trigger minor users' dopamine responses increases, they continue to use the social media products at issue, not for enjoyment, but simply to feel normal. Once they stop using these products, minor users experience the universal symptoms of withdrawal from any addictive substance including anxiety, irritability, insomnia, and craving.

255. Addiction is not restricted to substance abuse disorders. Rather, the working definition of addiction promulgated in the seminal article *Addictive behaviors: Etiology and Treatment* published by the American Psychological Association in its 1988 *Annual Review of Psychology* defines addiction as,

a repetitive habit pattern that increases the risk of disease and/or associated personal and social problems. Addictive behaviors are often experienced subjectively as 'loss of control' – the behavior contrives to occur despite volitional attempts to abstain or moderate use. These habit patterns are typically characterized by immediate gratification (short term reward), often coupled with delayed deleterious effects (long term costs). Attempts to change an addictive behavior (via treatment or self-initiation) are typically marked with high relapse rates.

256. Addiction researchers agree that addiction involves six core components: (1) salience—the activity dominates thinking and behavior; (2) mood modification—the activity modifies/improves mood; (3) tolerance—increasing amounts of the activity are

required to achieve previous effects; (4) withdrawal—the occurrence of unpleasant feelings when the activity is discontinued or suddenly reduced; (5) conflict—the activity causes conflicts in relationships, in work/education, and other activities; and (6) relapse—a tendency to revert to earlier patterns of the activity after abstinence or control.

257. Social media addiction has emerged as a problem of global concern, with researchers all over the world conducting studies to evaluate how pervasive the problem is. Addictive social media use is manifested when a user (1) becomes preoccupied by social media (salience); (2) uses social media in order to reduce negative feelings (mood modification); (3) gradually uses social media more and more to get the same pleasure from it (tolerance/craving); (4) suffers distress if prohibited from using social media (withdrawal); (5) sacrifices other obligations and/ or causes harm to other important life areas because of their social media use (conflict/functional impairment); and (6) seeks to curtail their use of social media without success (relapse/loss of control).

258. The Bergen Facebook Addiction Scale (BFAS) was specifically developed by psychologists to assess subjects' social media use using the aforementioned addiction criteria, and is by far the most widely used measure of social media addiction. Originally designed for Facebook, BFAS has since been generalized to all social media. BFAS has been translated into dozens of languages, including Chinese, and is used by researchers throughout the world to measure social media addiction.

259. BFAS asks subjects to consider their social media usage with respect to the six following statements and answer either (1) very rarely, (2) rarely, (3) sometimes, (4) often, or (5) very often,

- a. You spend a lot of time thinking about social media or planning how to use it.
- b. You feel an urge to use social media more and more.
- c. You use social media in order to forget about personal problems.
- d. You have tried to cut down on the use of social media without success.

- e. You become restless or troubled if you are prohibited from using social media.
- f. You use social media so much that it has had a negative impact on your job/studies.

Subjects who score a “4” or “5” on at least 4 of those statements are deemed to suffer from social media addiction.

260. Addictive use of social media by minors is psychologically and neurologically analogous to internet gaming disorder as described in the American Psychiatric Association's 2013 *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), which is used by mental health professionals to diagnose mental disorders. Gaming addiction is a recognized mental health disorder by the World Health Organization and International Classification of Diseases and is functionally and psychologically equivalent to social media addiction.

261. The diagnostic symptoms of social media addiction among minors are the same as the symptoms of addictive gaming referenced in DSM 5 and include:

- a. Preoccupation with social media and withdrawal symptoms (sadness, anxiety, irritability) when device is taken away or not possible.
- b. Tolerance, the need to spend more time using social media to satisfy the urge.
- c. Inability to reduce social media usages, unsuccessful attempts to quit gaming.
- d. Giving up other activities, loss of interest in previously enjoyed activities due to social media usage.
- e. Continuing to use social media despite problems.
- f. Deceiving family members or others about the amount of time spent on social media.
- g. The use of social media to relieve negative moods, such as guilt or hopelessness; and
- h. Jeopardized school or work performance or relationships due to social media

usage.

262. Defendants' advertising profits are directly tied to the quantity of their users' online time and engagement, and their algorithms and other product features are designed to maximize the time users spend using the product by directing them to content that is progressively more and more stimulative. Defendants enhance advertising revenue by maximizing users' time online through a product design that addicts them to the platform. However, reasonable minor users and their parents do not expect that online social media platforms are psychologically and neurologically addictive.

263. It is feasible to make Defendants' products not addictive to minor users by turning off the algorithms, limiting the frequency and duration of access, and suspending service during sleeping hours. Designing software that limits the frequency and duration of minor users' screen use and suspends service during sleeping hours could be accomplished at negligible cost; whereas the benefit of minor users maintaining healthy sleep patterns would be a significant reduction in depression, attempted and completed suicide, and other forms self-harm among this vulnerable age cohort.

R. Inadequate Notification of Parents of Dangerous and Problematic Social Media Usage by Minor Users

264. Facebook, Instagram, Snapchat, and TikTok are defectively designed.

265. Defendants' products are not reasonably safe as designed because they do not include any safeguards to notify users and their parents of usage that Defendants knows to be problematic and likely to cause negative mental health effects to users, including excessive passive use and use disruptive of normal sleep patterns. This design is defective and unreasonable.

266. It is reasonable for parents to expect that social media companies that actively promote their platforms to minors will undertake reasonable efforts to notify parents when their child's use becomes excessive or occurs during sleep time. It is feasible for Defendants to design a product that identifies a significant percentage of its minor users who are using

the product more than three hours per day or using it during sleeping hours at negligible cost.

267. Defendants' products are not reasonably safe as designed because, despite numerous reported instances of child sexual solicitation and exploitation by adult users, Defendants have not undertaken reasonable design changes to protect underage users from this abuse, including notifying parents of underage users when they have been messaged or solicited by an adult user or when a user has sent inappropriate content to minor users.

268. Defendants' entire business is premised upon collecting and analyzing user data and it is feasible to use Defendants' data and algorithms and other technologies to identify and restrict improper sexual solicitation, exploitation, and abuse by adult users.

269. Moreover, it is reasonable for parents to expect that platforms such as Facebook, Instagram, Snapchat, and TikTok, which actively promote their services to minors, will undertake reasonable efforts to identify users suffering from mental injury, self-harm, or sexual abuse and implement technological safeguards to notify parents by text, email, or other reasonable means that their child is in danger.

270. As a proximate result of these dangerous and defective design attributes of Defendants' product, L.S. suffered and is continuing to suffer mental harm. Plaintiff did not know, and in the exercise of reasonable diligence could not have known, of these defective design in Defendants' products until recently.

271. As a result of these dangerous and defective design attributes of Defendants' products, Plaintiff S.R. has suffered emotional distress and pecuniary hardship due to her child's mental harms and brain damage resulting from her social media addiction.

272. Defendants are further liable to Plaintiffs for punitive damages based upon the willful and wanton design of their products that were intentionally marketed and sold to underage users, whom they knew would be seriously harmed through their use of Facebook, Instagram, Snapchat, and TikTok.

COUNT II – STRICT PRODUCT LIABILITY (Failure to Warn)

273. Plaintiff realleges each and every allegation contained in the preceding paragraphs as if fully stated herein.

274. Defendants' products are defective because of inadequate instructions or warnings because the foreseeable risks of harm posed by these products could have been reduced or avoided by the provision of reasonable instructions or warnings by the manufacturer and the omission of the instructions or warnings renders the product not reasonably safe. This defective condition rendered the products unreasonably dangerous to persons or property, existed at the time the products left Defendants' control, reached the user or consumer without substantial change in the condition in which they were sold, and were a cause of Plaintiff's injuries.

275. Defendants' products are unreasonably dangerous and defective because they contain no warning to users or parents regarding the addictive design and effects of Facebook, Instagram, Snapchat, and TikTok.

276. Defendants' social media products rely on highly complex and proprietary algorithms and similar technologies that are both undisclosed and unfathomable to ordinary consumers, who do not expect that social media platforms are physically and/or psychologically addictive.

277. The magnitude of harm from addiction to Defendants' products is horrific, ranging from simple diversion from academic, athletic, and face-to-face socialization to sleep loss, severe depression, anxiety, self-harm, and suicide.

278. The harms resulting from minors' addictive use of social media platforms have been not only well-documented in the professional and scientific literature, but Defendants had actual knowledge of such harms.

279. Defendants' products are unreasonably dangerous because they lack any warnings that foreseeable product use can disrupt healthy sleep patterns or specific warnings to parents when their child's product usage exceeds healthy levels or occurs during sleep

hours. Excessive screen time is harmful to adolescents' mental health and sleep patterns and emotional well-being. Reasonable and responsible parents are not able to accurately monitor their child's screen time because most adolescents own or can obtain access to mobile devices and engage in social media use outside their parents' presence.

280. It is feasible for Defendants' products to report the frequency and duration of their minor users' screen time to their parents without disclosing the content of communications at negligible cost, whereas parents' ability to track the frequency, time and duration of their minor child's social media use are better situated to identify and address problems arising from such use and to better exercise their rights and responsibilities as parents.

281. Defendants knew about these harms, knew that users and parents would not be able to safely use their products without warnings, and failed to provide warnings that were adequate to make the product reasonably safe during ordinary and foreseeable use by children.

282. As a result of Defendants' failure to warn, L.S. suffered and continues to suffer serious mental harms from her use of Facebook, Instagram, Snapchat, and TikTok.

283. As a result of Defendants' failure to warn, Plaintiff S.R. has suffered emotional distress and pecuniary hardship due to her child's mental harm resulting from social media addiction.

284. Defendants are further liable to Plaintiff for punitive damages based upon their willful and wanton failure to warn of known dangers of their products that were intentionally marketed and sold to teenage users, whom they knew would be seriously harmed through their use of Facebook, Instagram, Snapchat, and TikTok.

COUNT III – NEGLIGENCE

285. Plaintiffs reallege each and every allegation contained in the preceding paragraphs as if fully stated herein

286. At all relevant times, Defendants had a duty to exercise reasonable care and

caution for the safety of individuals using their products, such as L.S.

287. Defendants owe a heightened duty of care to minor users of their social media products because adolescents' brains are not fully developed, which results in a diminished capacity to make good decisions regarding their social media usages, eschew self-destructive behaviors, and overcome emotional and psychological harm from negative and destructive social media encounters.

288. As product manufacturers marketing and selling products to consumers, Defendants owed a duty to exercise ordinary care in the manufacture, marketing, and sale of their products, including a duty to warn minor users and their parents of hazards that Defendants knew to be present, but not obvious, to underage users and their parents.

289. As business owners, Defendants owe users who visit their social media platforms and from whom they derive billions of dollars per year in advertising revenue a duty of ordinary care substantially like that owed by physical business owners to business invitees.

290. Defendants were negligent, grossly negligent, reckless and/or careless in that they failed to exercise ordinary care and caution for the safety of underage users, like L.S., using their social media products.

291. Defendants are negligent in failing to conduct adequate testing and failing to allow independent academic researchers to adequately study the effects of their products and levels of problematic use amongst teenage users. Defendants know that their products are harmful, cause extensive mental harm, and that minor users are engaging in problematic and addictive use that their parents are helpless to monitor and prevent.

292. Defendants are negligent in failing to provide adequate warnings about the dangers associated with the use of social media products and in failing to advise users and their parents about how and when to safely use their social media platforms and features.

293. Defendants are negligent in failing to fully assess, investigate, and restrict the use of their social media products by adults to sexually solicit, abuse, manipulate, and exploit

minor users of their social media products.

294. Defendants are negligent in failing to provide users and parents the tools to ensure their social media products are used in a limited and safe manner by underage users.

295. As a result of Defendants' negligence, L.S. suffered and continues to suffer severe mental harm from her use of Facebook, Instagram, Snapchat, and TikTok.

296. As a result of Defendants' negligence, Plaintiff S.R. suffered emotional distress and pecuniary hardship due to her child's mental and physical harm resulting from social media addiction.

297. Defendants are further liable to Plaintiffs for punitive damages based upon their willful and wanton conduct toward underage users, including L.S., whom they knew would be seriously harmed through use of their social media products.

DEMAND FOR JURY TRIAL

Plaintiffs hereby demand a trial by jury.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for judgment against Defendants for relief as follows:

- a) Past physical and mental pain and suffering of L.S., in an amount to be more readily ascertained at the time and place set for trial.
- b) Loss of future income and earning capacity of L.S.
- c) Past and future medical expenses of L.S.
- d) Past physical and mental pain and suffering of S.R., in an amount to be more readily ascertained at the time and place set for trial.
- e) Monetary damages suffered by S.R.
- f) Punitive damages.
- g) For the reasonable costs and attorney and expert/consultant fees incurred in this action.
- h) For injunctive relief including prohibition of each of the following,
 - a. Distribution to any user without a verified email address.

- b. Distribution to any user without a verified phone number.
- c. Distribution to any user without proof of identity or, in the case of users under the age of 18, proof of consent by a parent or guardian.
- d. Distribution to any user under the age of 18 without also obtaining a verified email address and phone number for the user's parent or guardian.
- e. Distribution to any user under the age of 18 where a parent or guardian has provided written (including email) notice that their child does not have permission to use Defendants' social media product (also requiring Defendant to provide a physical and email address where notices can be sent).
- f. For users under the age of 18, distribution of any social media product for more than two hours in a 24-hour period.
- g. For users under the age of 18, distribution of any social media product during the hours of 11 p.m. and 6 a.m., utilizing the time zone where the minor user is reasonably believed to be located and/or the time zone applicable at the time the account was opened.
- h. For users under the age of 16, distribution of any social media product during any times of day not approved by the minor user's parent or guardian.
- i. For users under the age of 16, access to any "group" that is not publicly visible (also requiring Defendant to provide separate, email notice to the parent or guardian each time the user joins a new group).
- j. Distribution to any user of more than one account.
- k. Distribution to any user over the age of 18, but who has been found to have represented or claimed on their profile, postings, or in messaging features that they are under the age of 18.
- l. Distribution to any user on the sex offender registry list.

- m. Use of algorithms and similar technologies to identify, suggest, direct, or provide unsolicited content to any user under the age of 18.
- n. Use of algorithms and similar technologies to rank or order any content shown to any user under the age of 18 except via objective and transparent methods, for example, ranking in chronological order.
- o. Use of visible “likes” and similar reaction and social comparison features.
- p. Use of any feature that requires users to log onto the product at specific days, times, or durations to maintain any form of status, standing, or rewards, including but not limited to the Snap Streak feature.
- q. Use of any feature that promises or offers hidden rewards, *i.e.* rewards where the identity or nature of the reward is not known ahead of time, like Trophies.
- r. Use of avatars, emojis, cartoons, or any other aesthetic feature that foreseeably targets or appeals to minors.
- s. Conditioning use of any game provided on opening of a social media account.
- t. Targeting of advertisements based on gender and/or protected class status.
- u. Targeting of any content whatsoever based on protected class status.
- v. Distribution of any product that is suspected to or does operate with any degree of algorithmic discrimination where such discrimination would foreseeably impact any member of any protected class.
- w. Marketing to any person under the age of 18.
- x. Collection of any consumer-related data from any third party relating to any user under the age of 18.
- y. Provision of any consumer-related data to any third party relating to any user under the age of 18.
- z. Collection of any data about any user under the age of 18 from any source,

except for information provided at account opening, account activities and communications, and other data reasonably necessary to operate the social media product.

- aa. Approval, distribution, and/or creation or encouragement of harmful advertising content, including but not limited to content that encourages drug use or eating disorders.
- bb. For users under the age of 18, any setting that makes the account public or in any way visible to any person not specifically “connected” to the user.
- cc. For users under the age of 18, any setting or tool through which communication is allowed with any person not already “connected” to the minor user. This includes but is not limited to thinks like Messenger, Direct Messaging, Snaps, and similar direct communication features.
- dd. For users under the age of 16, any feature of setting that allows them to a “connect” with any other user absent parental consent and confirmation of parental consent to the “connection.”
- ee. Use of any friend, connection, or follow recommendation tool in connection with any user under the age of 18, which means not making recommendations to the minor user and not making recommendations about the minor user.
- ff. Use of any group, page, or subject matter recommendation tool in connection with any user under the age of 18, which means not making recommendations to the minor user and not making recommendations about the minor user.
- gg. Use of any disappearing, expiring, or automatic deletion features on any communications or communication content sent to or received by any user under the age of 18.

- hh. Use of any feature that allows any user under the age of 18 to restrict access to content or otherwise conceal content from others, for example, the Snapchat My Eyes Only Feature
 - ii. Use of any feature that tracks and/or shares the location of any user under the age of 18.
 - jj. Use of any feature that allows any user under the age of 16 to send or receive money or any cash equivalent.
 - kk. Deletion of any identification or user information collected about any user under the age of 18 (and requiring provision of all such within three (3) business days of any written request by parent or guardian).
 - ll. Deletion of any identification of any account activity data for any account held by any user under the age of 18 (and requiring provision of all such within five (5) business days of any written request by parent or guardian).
 - mm. Deletion of any communications sent or received by any user under the age of 18, including the communication as well as any content included in or linked to the communication (and requiring provision of all such communications within three (3) business days of any written request by parent or guardian).
 - nn. Use of any push notifications or reminders or other notifications relating to activity taking place on social media.
 - oo. Use of any workflows that discourage any user from closing their account.
 - pp. Sending of any communication to any user under the age of 18 that is not also sent to that user's parent or guardian.
- i) For such other and further relief as this Court deems just and equitable.

Dated: August 30, 2022.

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